An Elementary Christian Psychology

O. M. NORLIE

An Elementary

Christian Psychology

A GENERAL PSYCHOLOGY FROM
A CHRISTIAN VIEW POINT

By

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MINNEAPOLIS, MINN.
AUGSBURG PUBLISHING HOUSE
1925

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MINNEAPOLIS, MINN.

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Printed in U. S. A

1736

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FOREWORD

The Board of Elementary Christian Education of the Norwegian Lutheran Church of America has keenly felt the need of an elementary work on psychology presenting that subject from a Biblical point of view, and it is therefore with a great deal of pleasure that it is now able to present such a volume to the pastors, Sunday School superintendents, and teachers in our Sunday Schools and other schools of elementary Christian education. The author is so generally known throughout our Church for his broad scholarship, painstaking care, and faithfulness to Scripture and the Lutheran confessions that he needs no introduction. In some respects the book is not as elementary as the Board had originally intended that it should be, but it is felt that the rich variety of material presented may be readily adapted to suit the needs of individual classes by the teachers in charge. While there are some psychological views held by the author in which the individual members of the committee in charge of the publication of this volume cannot share, the book presents the subject of psychology both in a scientific and Scriptural manner. The board, therefore, commends this work on "Elementary Christian Psychology" to the widest possible use in teacher-training classes as well as for individual study. May this volume prove helpful in promoting proficiency on the part of our teachers in dealing with the children of the various ages and conditions and thus aid in the great and important work of the Christian training of our children.

J. N. Andersen,
G. M. Bruce,
Jacob Tanner,
Committee.

ACKNOWLEDGMENTS

It is impossible in this space to make suitable acknowledgments to all those who in one way or another, have aided the author in the conception and preparation of this little book. The following list is not exhaustive, but includes the names of those who, he feels, ought to be mentioned at this time.

1. Rev. J. N. Andersen, who first projected this book and prevailed on the undersigned to write it.

2. The Board of Elementary Christian Education of the Norwegian Lutheran Church of America, especially the following members: Rev. J. N. Andersen, Prof. G. M. Bruce, S. T. D., and Prof. Jacob Tanner, S. T. D., who constituted a Special Committee to criticize the manuscript. This Committee held several meetings to discuss with the author the general plan and the contents of the book in detail and assisted him very much in making the book what it is. The faults of the book must not be laid at their doors.

3. Miss Edith Hexom has copied the author's diagrams and made them more presentable for publication. Rev. Olaf A. Langehough and Miss Florence Mary Bente have permitted the use of their photographs to illustrate the stages of childhood and youth. Several publishers have granted permission to reproduce illustrations from their publications, namely: The American Book Co., Ginn and Co., Henry Holt and Co., Longmans, Green and Co., Macmillan Co., D. Appleton and Co., Charles Scribner's Sons, and Silver, Burdett and Co.

4. Text books in psychology, of which 1,200, written by 1,000 different authors, have been read or examined. As to subject matter, these source books cover every known field and method of psychology, and are written from every angle. As to place of writing, 50 per cent were produced in America, 20 per cent in Great Britain, 20 per cent in Germany and Scandinavia and 10 per cent in 29 other lands. As to time of writing, 60 per cent are recent books, published since 1900, and 40 per cent are distributed over the preceding 25 centuries. The author has freely seasoned his own lines with quotations from these and other sources and has given at the end of each chapter brief reference lists, in order to give credit for the quotations and to encourage the reader to further study.

5. The author's former teachers in psychology and pedagogy: M. Elizabeth Allen, F. E. Bolton, Ph.D., H. E. Bolton, Ph.D., M. A. Bussewitz, M.D., C. P. Cary, B.S., G.A. Clarke, Ph.M., T. H. Haney, A.M., A. Hardy, A.M., L. D. Harvey, Ph.D., Frances J. Holcomb, B.L., G. F. James, Ph.D.,

J. I. Jegi, M.S., K. S. Lashley, Ph.D., R. C. Lodge, A.M., Frances Lowell, Ph.D., Grace D. Madden, Ph.M., I. C. McNeill, Litt.D., G. W. Nash, LL.D., M. V. O'Shea, B. L., C. S. Patzer, Jennie Rudolph, B.S., A. S. Salisbury, Ph.D., Emma Schreiber, C. E. Schutts, Ph.B., J. W. Stearns, LL.D., Emily W. Strong, A. G. Tuve, M. J. VanWagenen, Ph.D., L. Mae Virden and H. Woodrow, Ph.D.

6. The author's former teachers in philosophy and theology: A. Fossum, Ph.D., and Rev. Th. N. Mohn, A.B. (philosophy), Rev. J. O. Evjen, Ph.D., and Rev. C. M. Weswig, B.D. (ethics), A. Beatty, Ph.D. (psychology of aesthetics), F. J. Klaeber, Ph.D. (psychology of language), Rev. J. A. Aasgaard, D.D., Rev. C. E. Lindberg, D.D., LL.D., and Rev. F. A. Schmidt, D.D. (dogmatics), J. Anderson, E. A. Birge, Ph.D., Sc.D., Rev. C. A. Blomgren, Ph.D., Rev. M. O. Bøckman, D.D., Rev. O. G. Felland, A.M., B. Gates, Rev. O. Glasoe, A.B., G. Hanson, C. V. Hibbard, B.S., Rev. E. Kr. Johnsen, D.D., F. T. Kelly, Ph.D., Rev. O. Lee, A.M., Rev. C. B. Lindtwed, A.B., Rev. D. Lysnes, Rev. C. J. Sødergren, D.D., and Rev. N. Tøsseland (Bible).

7. The author is much indebted to the following for their critical reading of his psychological manuscripts: Prof. L. A. Vigness, who read a manuscript written in 1919 (unpublished); Prof. O. A. Tingelstad, who read a manuscript written in 1920 (unpublished); and Prof. J. J. Skørdalsvold, who has proof-read the present manuscript in the printing. The critical comments of these scholars have been of material assistance.

To all these, and to all others who have caused this book to be written, the author is duly grateful. Stor tack skall ni ha.—Tak og atter tak. —O. M. NORLIE.

CONTENTS

PAGE

Foreword 3
Acknowledgments 5-6
Chapter One. Psychology and the Soul 13-27
I. Psychology 13-14
1. Definition 13
2. Value 13-14
II. The Essential Parts of Man 14-16
1. Body 14-15
2. Soul 15-16
III. Attributes of the Soul 16-19
1. It Is Spiritual 16
2. It Is Real 16
3. It Is Immortal 16-17
4. It Is Rational 17-18
5. It Is Moral 18
6. It Is Religious 18-19
7. It Is Priceless 19
IV. Other Terms for Soul 19-24
1. Spirit 23
2. Ghost 23
3. Heart 24
4. Mind 24
V. Psychological Methods 24-25
Chapter Two. Connection between Body and Soul 28-39
I. Current Theories 28-33
1. Idealism 28-29
2. Materialism 29
3. Double Aspect Theory 29-30
4. Parallelism 30
5. Incarcerationism 30
6. Interactionism 30-33
II. Influence of the Body upon the Soul 33-37
1. The Bony Frame 33
2. The Muscles 33
3. The Digestive System 33-34
4. The Circulatory System 34
5. The Respiratory System 36
6. The Nervous System 35-36
7. The Special Sense Organs 36-37
III. Influence of the Soul upon the Body 37-39
1. The Bony Frame 37
2. The Muscles 37
3. The Digestive System 37-38
4. The Circulatory System 38

PAGE

5. The Respiratory System 38
6. The Nervous System 38
7. The Special Sense Organs 38-39

Chapter Three. Physical Foundations: Heart 40-48
I. The Aristotelian View 41
II. The Biblical View 41-48
1. The Heart the Seat of the Soul 41-43
2. Proof Passages 43-46
3. Conclusions 46-48

Chapter Four. Physical Foundations: Head 49-66
I. The Nervous System in General 49-51
1. Parts 49
2. Physiology 49
3. Psychology 50
4. Value 50-51
II. The Central Nervous System 51-59
1. Parts 51-53
2. Physiology 54-57
3. Psychology 57-59
III. The Peripheral Nervous System 59-62
1. Parts 59-60
2. Physiology 60-61
3. Psychology 62
IV. The Sympathetic Nervous System 62-64
1. Parts 62
2. Physiology 62-64
3. Psychology 64
V. The Glandular System 64-65

Chapter Five. Psychical Foundations: Consciousness and Attention 67-78
I. Consciousness 67-73
1. Its Meaning 67-69
2. Its Degrees 69-73
3. Its Scope 73
4. Its Duration 73
II. Attention 73-77
1. Its Meaning 73-75
2. Its Degrees 75
3. Its Scope 76
4. Its Duration 76-77

Chapter Six. Knowing: Presentation—Intuition, Sensation, Perception 79-90
I. Powers, Processes, Products 79-81
1. Powers 79-80
2. Processes 80-81
3. Products 81
II. The Major Powers 81-82

PAGE
III. Knowing 82-83
IV. Presentation 83-89
1. Intuition 83-84
2. Sensation 84-87
3. Perception 87-89
Chapter Seven. Knowing: Representation — Association, Memory, Imagination 91-103
I. Association 92-94
1. Analysis 92-93
2. Classification 93
3. Value 93-94
II. Memory 94-100
1. Analysis 94-99
2. Classification 99
3. Value 99-100
III. Imagination 100-102
1. Analysis 100-101
2. Classification 101-102
3. Value 102
Chapter Eight. Knowing: Thinking—Conception, Judging, Reasoning 104-116
I. Conception 106-109
1. Analysis 106-107
2. Classification 107-108
3. Value 108-109
II. Judging 110-112
1. Analysis 110
2. Classification 110-111
3. Value 111-112
III. Reasoning 112-116
1. Analysis 112
2. Classification 112-114
3. Value 114-116
Chapter Nine. Feeling 117-129
I. Analysis 117-124
1. Definition 117-118
2. Physical Basis 118-119
3. Causes 120
4. Attributes 120-124
II. Classification 124-127
1. As to Origin 125
2. As to Composition 125-127
III. Value 127-128
Chapter Ten. Willing 130-142
I. Analysis 131-136
1. Desire 132-133
2. Deliberation 133

PAGE

3. Choice 133
4. Purpose 133-134
5. Action 134-136
II. Classification 136-138
1. As to Steps 136
2. As to Action 136-137
3. As to Freedom 137-138
III. Value 138-141

Chapter Eleven. Conscience 143-159
I. Psychology and Conscience 143-148
1. Psychology's Neglect of Conscience 143-144
2. Value of Conscience 144-145
3. Definitions of Conscience 145
4. Proofs of Existence of Conscience 145-147
5. Relation of Conscience to the Other Faculties .. 147-148
II. Analysis 148-153
1. Knowing Aspect 148-150
2. Feeling Aspect 150-151
3. Willing Aspect 151-153
4. Physical Aspect 153
III. Classification 153-154
IV. Value 154-157
1. Tributes from Proverbs 154
2. Tributes from Poetry 155
3. Tributes from Philosophy 155
4. Tributes from Theology 155-156
5. A Pedagogical Application 156-157

Chapter Twelve. Faith 160-177
I. Psychology and Faith 160-165
1. Psychology's Neglect of Faith 160
2. Value of Faith 160-161
3. Definitions of Faith 161-164
4. Proofs of Existence of Faith 164-165
5. Relation of Faith to the Other Faculties 165
II. Analysis 165-170
1. Knowing Aspect 165-168
2. Feeling Aspect 168
3. Willing Aspect 168-169
4. Conscience Aspect 169-170
5. Physical Aspect 170
III. Classification 170-172
1. As to Source 170
2. As to Age of Believer 171
3. As to Scope 171
4. As to Quantity 171
5. As to Quality 171
6. As to Denomination 171-172

PAGE

IV. Value 172-175
1. Influence on Knowing 172
2. Influence on Feeling 173
3. Influence on Willing 173
4. Influence on Conscience 173-174
5. A Pedagogical Application 174-175

Chapter Thirteen. Natural and Renewed States 178-192
I. The Natural State 178-182
1. The State of Innocence 178
2. The Fall 179-181
(1) The Origin of Sin 179
(2) The Essence of Sin 179-180
(3) The Forms of Sin 180
(4) The Degrees of Sin 181
(5) The Punishment for Sin 181
3. The State of Corruption 181-183
(1) The Deep Depravity 181-182
(2) The Longing for Redemption 183
II. The Renewed State 183-192
1. The Preparation for Redemption 184-186
(1) God's Eternal Purpose 184
(2) The Work of Christ 184-185
(3) The Establishment of the Kingdom of God 185-186
2. The Application of Redemption 186-188
(1) The Dispensation of the Holy Ghost 186-187
(2) The Means of Grace 187-188
3. The Effects of Redemption 188-191
(1) Faith 188-189
(2) Justification 189
(3) Vocation 189
(4) Illumination 189
(5) Sanctification 189-190
(6) Preservation 190-191
(7) Regeneration 191
(8) Conversion 191

Chapter Fourteen. Learning 193-211
I. Basis of Learning: Instinct and Intelligence 193-197
1. Analysis 194-196
2. Classification 196
3. Value 196-197
II. Process of Learning: Practice and Habit 197-200
1. Analysis 197-199
2. Classification 199
3. Value 199-200
III. Laws of Learning: Interest and Apperception 200-202
1. Analysis 200
2. Classification 200-201
3. Value 201-202

PAGE

IV. Measurement of Learning: Tests and Grading....202-209
1. Analysis 204-206
2. Classification 207
3. Value 207-209

Chapter Fifteen. Childhood and Youth 212-234
I. Childhood 213-221
1. Physical Growth 214
(1) Height and Weight 214
(2) Parts and Organs 214-216
(3) Health and Strength 216-218
2. Psychical Growth 218-221
(1) Knowing 218-219
(2) Feeling 219
(3) Willing 219-220
(4) Conscience 220
(5) Faith 220-221
II. Youth 221-232
1. Physical Growth 222-226
(1) Height and Weight 222-224
(2) Parts and Organs 224-225
(3) Health and Strength 225-226
2. Psychical Growth 226-232
(1) Knowing 226-227
(2) Feeling 227-228
(3) Willing 228
(4) Conscience 228-231
(5) Faith 231-232

Chapter Sixteen. The Self 235-249
I. As Body and Soul 235
II. As Consciousness, Multiple Consciousness and Subconsciousness 235-240
1. As Consciousness 235
2. As Multiple Consciousness 236-237
3. As Subconsciousness 237-240
III. As Powers, Processes and Products 240-242
1. As Powers 240-241
2. As Processes 241
3. As Products 241-242
IV. As Unity, Continuity and Identity 242-245
1. As Unity 242-243
2. As Continuity 244
3. As Identity 244-245
V. As Personality and Character 245-248
1. As Personality 245-246
2. As Character 246-248
Index of Persons 253
Index of Scripture Passages 259
Index of Subjects 262

CHAPTER ONE

PSYCHOLOGY AND THE SOUL

I. PSYCHOLOGY

1. Definition

"The proper study of mankind is man," said Pope(1), the poet. The most essential part of man is his soul. Psychology (from two Greek words—psyche, meaning soul, and logos, meaning word, or science) is the science of the soul.

2. Value

Everyone has considerable knowledge about his soul, but this common knowledge, however ample and valuable, is not necessarily scientific, and it loses therefore much of its value. To be scientific it must be sifted and systematized, corrected in this particular and enlarged upon in that. "The scientist is born," says Thilly, "when a man begins to wonder at facts, and aims to correlate them with other facts or insert them into a system, be it ever so crude" (2). Psychology is a systematic classification of the facts and principles concerning the soul. It gathers the facts established by all schools of investigators.

Psychology is a very profitable study. There was once a boiler explosion, resulting in considerable destruction of property and loss of life. At the coroner's inquest it was discovered that the engineer had very little exact scientific knowledge of steam boilers. His ignorance was the cause of the explosion. There are many accidents of a worse nature than boiler explosions happening daily in our midst, often passing unheeded and never investigated at any coroner's inquest. There are wreckages of human souls, boys and girls going wrong, men and women making a failure of life, old and young falling far short of their goal and losing at last their eternal heritage.

The cause of these failures can often be traced to the door of the parent or teacher or preacher or some one else engaged in guiding, leading, instructing or governing his fellowmen. Many had no adequate understanding of the soul and its powers, processes, products, problems and possibilities, and were crude and bungling in their methods. The study of psychology should prove very helpful to any one who wants to understand himself and his fellowmen. The proper study of mankind is man.

II. THE ESSENTIAL PARTS OF MAN

Man consists of two essential parts—body and soul. This is the common opinion of mankind and the clear teaching of the Word of God.

Take, for example, the story of creation as told in Gen. 2:7. The Bible does not say one word about the fiction that man has descended from a monkey or that he has evolved from some other animal (3). It says simply that God formed man from the dust of the ground, and after that He breathed into man's nostrils the breath of life, and man became a living soul.

Or, take the case of the son of the widow of Zarephath (1 Kings 17:21-22). This boy took sick and died. The boy's mother appealed to the prophet Elijah. Elijah laid the matter before the Lord. "O Jehovah, my God," he prayed, "let this child's soul come into him again." "And Jehovah hearkened unto the voice of Elijah; and the soul of the child came into him again, and he revived." (Cf. Matt. 10:28.)

In the First Article of the Apostles' Creed the Christian Church confesses her faith in God, the Creator. Luther (4) explains this Article as follows: "I believe that God has created me, together with all creatures; that He has given and still preserves to me my body and soul—eyes, ears and all my members; my reason and all my senses, etc."

1. Body

The body is the material part of man. It was made of dust and returns to dust (Gen. 2:7; 3:19). Man is

made of exactly the same kind of material as the animals and plants—dust of the ground, matter. This does not mean that he has blood relationship with the animal and plant creation, that he has been derived from them by the process of evolution. God has made man by an act of special creation, according to His Word.

2. Soul

The soul is the immaterial part of man. It was created by God and placed in the body of clay that He had made. It was not made of dust and does not return to dust. "Dust thou art, to dust returnest, Was not spoken

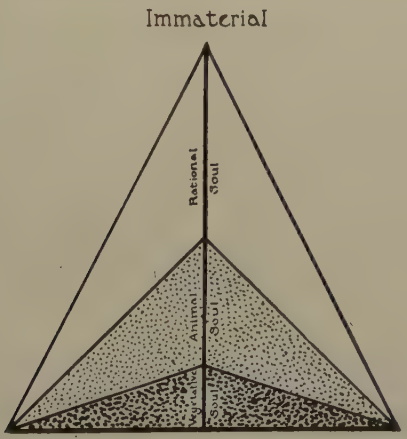

Fig. 1. RELATION OF MAN TO ANIMALS AND PLANTS

of the soul" (5). Solomon says (Eccl. 12:7): "The dust (body) shall return to the earth as it was, and the spirit (soul) shall return unto God Who gave it."

Now, plants and animals, being living things, are frequently described as having souls. Aristotle (6), for example, speaks of three kinds of souls, corresponding to the three types of living creation—vegetative, animal and

human. The vegetative soul is occupied with mechanical and chemical changes in assimilating food and in propagation. The animal soul has in addition to the powers of the vegetative soul also the power to move about freely, besides a variety of psychical powers, such as, sensation, memory, feeling, will. Man possesses the soul powers of both plants and animals, and far outstrips them both in degree and kind of powers. Man's body is like that of the plants and animals—dust, but his soul is different from theirs. It came into man as a breath from God Himself. It is spiritual, real, immortal, rational, moral, religious and priceless.

III. ATTRIBUTES OF THE SOUL

1. It Is Spiritual

The soul is immaterial, not made of matter. It is non-corporeal, has no body. It is a spirit, and is often called spirit instead of soul. For instance, in Luke 8:55 is the account of the raising of Jairus' daughter from the dead. Jesus said to her: "Maiden, arise." "And her spirit returned, and she rose up immediately." God is a Spirit. The angels are spirits. Man is a spirit that dwells in a material body as in a temple.

2. It Is Real

The soul is real. Like the body, it really exists. Some deny that there is such a thing as soul. One reason for this is, that they can not see it with their eyes nor touch it with their hands. Said one man to another: "I do not believe anything that I can not see." Said the other: "Can you see the air?" "No." "Then there are things that you can not see?" "Yes, I suppose so." Yes, there is a real soul. Adam had a real soul as well as a real body. So had the widow's son and Jairus' daughter. So has every human being.

3. It Is Immortal

The soul is alive, not dead. In fact, it is the living principle in man. When the soul quits the body, the

body decomposes and returns to the elements of the earth from which it is made. The soul of man is immortal. It can never die. Yet we speak of death—temporal death, spiritual death and eternal death (7). Death means either separation or extinction. In temporal death the body and soul separate, the life in the body becomes extinct, but the soul lives on apart from the body, until the resurrection morning when the two shall again be

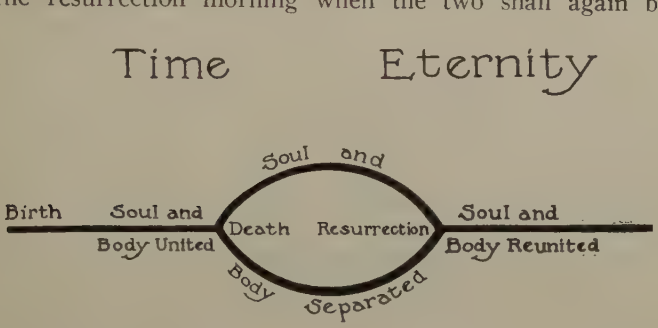

Fig. 2. UNION, SEPARATION, REUNION

united. In spiritual death the body and the soul remain together, but the soul through sin has broken its spiritual union, its fellowship with God. The soul does not die in the sense of becoming extinct, but it dies in the sense that it is separated from the source of the true life of the soul, which is God. In eternal death the body and soul are united, and never annihilated, but there is a final and an entire loss of fellowship with God, an everlasting exclusion from Heaven, and a never ending misery in Hell. In the sense of extinction the soul can not die. It is immortal.

4. It Is Rational

The soul is rational. The "soul" life of plants is occupied with overcoming matter, through such specific

functions as birth, nutrition, growth, reproduction, conservation, decay.

The "soul" life of animals adds to these purely vital powers a number of new powers, either peculiar to the animals or common also to man, such as, instinct and intelligence, seeing and hearing, appetite and passion, feeling and will. The soul life of man is rational. Man's thought and action far outstrip that of the brute in quality as in quantity. By means of his power to think man holds dominion over the forces of nature, over the beasts of the field, over all creation. Through his reason he makes progress; through this faculty one man often outstrips his brother, one nation forges ahead of another.

5. It Is Moral

The soul of man is moral. It has standards of right and wrong which it tries to conform to. The fundamental standard is the Moral Law, the Ten Commandments, which were written in the conscience at creation (Rom. 2:15). Other standards are also set up, based on the customs and ideals of a day or place. These secondary standards may be in harmony with the fundamental standard, or may conflict with it. With respect to his moral nature man is entirely different from the animal creation. An animal has no standard of right and wrong, of virtue and duty. The animal is therefore said to be simply unmoral, or non-moral, not immoral. Man is said to be immoral when he acts contrary to the moral standards. But he is always moral in the sense that he is created with the power to distinguish between right and wrong.

6. It Is Religious

The soul of man is religious. Man has an innate knowledge of a Higher Being, Whom he fears, loves, trusts, adores and worships. Everyone can know much about God, even apart from His written Word, the Bible. "The heavens declare the glory of God, And the firmament showeth His handy-work" (Ps. 19:1). Only the "fool saith in his heart: 'There is no God'" (Ps. 53:1).

All peoples are therefore religious, and natural religions flourish where the true, revealed religion is not known. Man, as Sabbatier (8) says, is incurably religious.

7. It Is Priceless

The soul is priceless. Jesus said: "For what shall it profit a man, if he shall gain the whole world, and lose his soul?" (Mark 8:36-37). "For God so loved the world, that He gave His Only Begotten Son, that whosoever believeth on Him should not perish, but have everlasting life" (John 3:16). Man was the last and the highest of the creatures made by God. All the world was created for him, and he in turn was created that he might enjoy everything in innocence and obedience to His Creator, in Whose very image he was made. But sin came into the world with death in its train. Life on earth is short—only some three score years and ten, more or less, usually less. Now the soul does not die, but lives on in eternity, either in eternal bliss with God or in eternal misery apart from God. It is God's gracious will that the soul shall enjoy the glories of Heaven, that each soul shall be His own, live under Him in His Kingdom, and serve Him in everlasting righteousness, innocence and blessedness. For this reason Christ was born, suffered, died and rose again from the dead. For this reason the Holy Spirit is being sent to bring souls to repentance and living faith in Christ. For this reason God has instituted the Christian Church, given man the Means of Grace, sent out ambassadors in Christ's stead, and in every way provided for us, protected us and been long-suffering toward us. This is most certainly true, scribes, sophists, scholastics, savants, scientists and other scholars to the contrary notwithstanding.

IV. OTHER TERMS FOR SOUL

The word soul has a number of synonyms, some of which should be noted at this point because they constantly occur in the language and literature of psychology. Among these synonyms are the following: Spirit, ghost, mind, consciousness, brains, bosom, breast, blood, life,

self, ego. Four of these—spirit, ghost, heart and mind—are briefly explained in the ensuing paragraphs. Three of these—spirit, heart and mind—besides soul, occur in almost every speech or writing on the soul. They occur also in this book.

As to the frequency of usage, there is some difference

Fig. 3. TWO ESSENTIAL SUBSTANCES

in practice among those who are writing devotional literature and those who are writing scientific expositions. The Authorized Version of the English Bible (1611), for example, uses the word soul 488 times, spirit 395 times, heart 912 times, and mind 82 times. The "Lutheran Hymnary" (618 hymns) mentions the soul by name 340 times, the spirit 63 times, the heart 246 times, and the mind 26 times. A check on 12 men giving a total

of 100 sermons, shows the following preferences: Soul 120 times, spirit 46 times, heart 142 times, and mind 61 times. In 40 per cent of the songs and 45 per cent of the sermons two or more of these four words were used. The student of psychology must take note of this variety of expression in current usage.

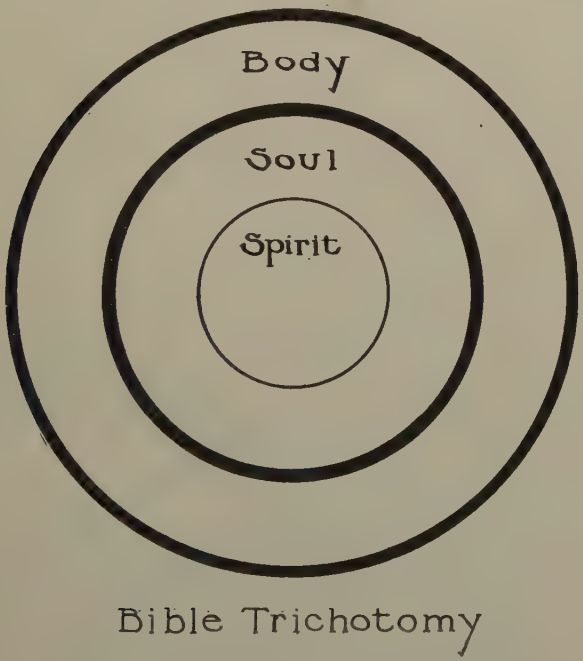

Fig. 4. THREE ESSENTIAL SUBSTANCES

As examples of such usage the following lines are fairly typical:

From Hymn 58, "Lutheran Hymnary":

Draw us to Thee in mind and heart,
On heavenly things attending;
In spirit hence let us depart,
To Thee, O Lord, ascending.

Receive our souls to Thee above,
Thy name in death imploring.—(Funcke.)

From a sermon:

"Longing in the heart"; "rejoice in heart"; "divine light in the soul illumines the mind and heart"; "soul is dark, heart is dead"; "spirit of man"; "grasp with the mind"; "spiritual and mental feast."

From a psychology (F. Tracy's "Psychology of Adolescence"):

"The complicated mechanism of sense is obviously fitted to inform the *mind*" (p. 24); "And the equally complicated mechanism of movement is just as obviously fitted to be the medium for the expression of all that is in the *soul*" (p. 24); "The free activities of the *spirit*" (p. 25); "*Heart* and *soul* of religion" (p. 130); "Thrilled the *soul*" (p. 151).

The principal thing to note is, that these synonyms may be used to mean exactly the same, or, they may be used to set forth different shades of meaning. The usage follows more or less two current theories as to the essential parts of man, namely, dichotomy and trichotomy. Dichotomy (from two Greek words, meaning to cut into two parts) is the doctrine that man consists of two essential parts—body and soul. Trichotomy (from two Greek words, meaning to cut into three parts) is the doctrine that man consists of three essential parts—body, soul and spirit. Since both soul and spirit refer to the non-corporeal, immaterial part of man, but from two different angles, it is quite easy to harmonize dichotomy and trichotomy. Nearly everybody holds the dichotomy view, and, at the same time, very frequently speaks the language of trichotomy. They try to distinguish between soul in its ordinary life and soul in its moral and religious life, or innermost, deepest, loftiest, truest aspirations (9).

Finally, it should be noted that the boundaries between soul and spirit, or any of the other pairs denoting the spiritual side of man, are very fluctuating. Sometimes, in trichotomy, it is impossible to see any distinction at all between soul, spirit, heart and mind.

It should be noted that those who hold the triple division have a most various mode of expression, as, for example:

Body—soul—spirit;
Body—mind—spirit;
Body—spirit—soul;
Body—soul—heart;
Body—mind—soul;
Body—spirit—heart;
Body—soul—mind;
Body—mind—heart;
Body—spirit—mind.

1. Spirit

In 1 Kings 17:21-22 it was the soul of the dead boy that returned to the body; in Luke 8:55 it was the spirit of the dead girl that returned. This proves that soul and spirit can mean exactly the same. Compare also Matt. 10:28 with Acts 7:59; see also Luke 1:46-47, where soul and spirit are perfect synonyms.

But in 1 Thess. 5:23 and Heb. 4:12 there is a distinction between soul and spirit. The first passage reads thus: "May your spirit and soul and body be preserved entire." The second passage speaks of the "dividing asunder of soul and spirit." Both soul and spirit refer to the immaterial part of man, but from different points of view. In the word soul the meaning is evidently the life principle which man has in common with the brute; in spirit the meaning is the life principle which man has in common with God. Spirit, according to Paul, is the inmost soul, the highest powers of the soul.

2. Ghost

Ghost is an old English word for spirit (Latin, spiritus). Hence, Holy Ghost is the same as Holy Spirit. In Luke 23:46 the death of Jesus is related: "Into Thy hands I commend My spirit." "And having said thus, He gave up the ghost." Here spirit and ghost mean exactly the same.

Ghost is commonly used in a special sense to mean a disembodied soul, a spirit appearing after death.

3. Heart

About 50 per cent of the devotional references to the soul found in Scripture, devotional literature, as sermon and song, uses the word heart. Heart is therefore the most favorite expression for soul, at least in devotional language.

Heart is often used to mean exactly the same as soul, but even the strictest defenders of dichotomy seem to use heart also to mean inmost soul (5). The terminology varies, the following triads being interchangeable: Body-soul-heart (inmost soul); Body-mind-heart (inmost mind); Body-spirit-heart (inmost spirit).

4. Mind

Mind is the favorite expression in psychological literature. Some use mind even now to mean the same as soul. As, for example, in an old-fashioned book, Gordy's "New Psychology" (p. 65-71). Gordy holds an imaginary conversation with the student. He has through a series of questions gotten the student to define mind as that which thinks and feels, and also to define soul as that which thinks and feels. So he concludes: "And if the soul is that which thinks and feels, and the mind is that which thinks and feels, they must be the same, must they not?"

According to the supporters of trichotomy, the order may be any of the following:

Body—soul—mind (inmost soul) (10);
Body—mind—spirit (inmost mind) (11);
Body—mind—soul (inmost mind) (12);
Body—mind—heart (inmost mind) (13).

V. PSYCHOLOGICAL METHODS

Psychology draws upon several kindred subjects, as theology, philosophy and natural science, for material, and employs the most efficient methods known to these subjects. The psychological methods may be classified as subjective and objective.

The subjective method is called introspection. The soul that we know most about and are most interested in, lies within ourselves. We alone can observe its workings adequately. We alone can look within ourselves. In doing so we are aware that we are at the same time both the observer and the observed. This method is used alongside of the objective.

The objective method is a systematic observation of the outside world, particularly the behavior of other people and other products of soul activity, as, language, literature, history, art, customs, dress, worship, etc. The most definite type of observation is the experiment. An experiment is an observation under controlled conditions, so that it can be repeated and its results tested and explained. For example, ascertaining the time it takes to say the alphabet forward and backward, is an experiment.

This book is called a "Christian Psychology" for the reason that it attempts to supplement the science of psychology with the fundamental concepts of the Bible, without prejudice to either the scientific or the Christian theological point of view.

In condemning or approving the author's views the hostile critic or the gentle reader—as the case may be—should bear in mind that an attempt is here made to present some of the distinctly Christian teachings as to the soul, and that within limited space (14).

This book employs the method and material of philosophy and science wherever these do not conflict with the clear teachings of the Bible, the revealed, inspired, authoritative and infallible Word of God. While the Bible is not a text book of psychology, it is, on many points, the best and last source: It is an inexhaustible gold mine of psychological information, being as G. Stanley Hall says, "man's great text book in psychology" (15).

A. QUESTIONS AND ASSIGNMENTS

I. Define psychology. State its value. II. What are the essential parts of man? Define and illustrate each in turn. III. Define and illustrate the attributes of the soul listed here. What is meant by vegetative soul? Animal soul? Rational soul? IV. Discuss the names used instead of soul. When used. Where used. How used. What is dichotomy? Trichotomy? How do trichotomists distinguish between soul and spirit? Soul and heart? Soul and mind? Etc. V. What are the methods of psychology? Define introspection. Observation. Experiment. What is philosophy? Name some of its branches, and tell what each contributes to psychology. What is natural science? Name some of its branches, and tell what each contributes to psychology. Why is the Bible a good source book in psychology?

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9. The Old Testament word for soul (Hebrew, nephesh) and the New Testament word (Greek, psyche) strictly meant the animal life which man possesses in common with the brutes (Gen. 1:20, 21, 24, 30; 2:19, etc.; Rev. 8:9; 16:3; cf. Latin, anima). The Old Testament word for spirit (Hebrew, ruach) and the New Testament word (Greek, pneuma) strictly meant the rational and immortal life not possessed by the brute creation, but by man alone (Gen. 41:8; 45:27; Ex. 35:21; Num. 16:22; Judg. 15:19; 1 Sam. 1:15; etc.; Matt. 5:3; 26:41; Acts 17:16; Rom. 1:9; etc.; cf. Latin, spiritus). Usually, however, no distinction is made by the sacred writers between soul and spirit. Spirit is used about animals as well as men. Sometimes it means breath as the source of all animal life (Gen. 6:17; 7:15, 22; Eccl. 3:21; etc.; Jas. 2:26; Rev. 13:15; etc.). Soul is used about the rational and immortal life as well as the animal existence (Gen. 42:21; Lev. 26:43; Judg. 10:16; Ps. 42:2; etc.; Matt. 10:28; 11:29; 12:18; etc.). Commonly the Biblical writers speak of man as consisting of only two elements, body and soul, or body and spirit, or body and mind. The three-fold classification is used only when a distinction between the animal life and the rational life must be made (cf. 1 Chron. 28:9—heart and mind; Deut. 4:29; Josh. 22:5; 23:4; 1 Kings 2:4; 2 Kings 23:3; 2 Chron. 6:38; Prov. 2:10—heart and soul; 1 Thess. 5:23; Heb. 4:12—soul and spirit). See Herzog: "Real-Encyklopaedie" (Geist, Herz, Seele, 1855. 1866); Cremer, H.: "Biblico-Theological New Testament Greek Lexicon" (1880); Weidner, Revere Franklin: "Biblical Theology of the Old Testament" (1886), 101-104; "Biblical Theology of the New Testament" (1891), I, 79-81, II, 86-87; "Anthropology" (1912), 13-21, 41-42; Winer, Georg Benedikt: "Biblisches Realwörterbuch" (1820); Young, Robert: "Analytical Concordance to the Bible" (1881); Whitney, William Dwight: "Century Dictionary" (1889. 1913); Murray, James A. N.: "New English Dictionary on Historical Principles;" Waller, G.: "Biblical View of the Soul" (1904); Ueberweg,

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14. One of the first attempts to write a Christian psychology was no doubt that of Tertullian, whose book, "De Anima," written in 203 A. D., over 1700 years ago, tries to explain the origin, nature and destiny of the soul. It seems that even at that early date there was a perfect Babel of voices on the Plains of Psychology. Tertullian remarks: "The various schools reflect the character of their masters, according as they have received their impressions from the dignity of Plato, or the vigor of Zeno, or the equanimity of Aristotle, or the stupidity of Epicurus, or the sadness of Heraclitus, or the madness of Empedocles. The fault, I suppose, of the divine doctrine lies in its springing from Judea rather than from Greece. Christ made a mistake, too, in sending forth fishermen to preach, rather than the sophists."

15. Hall, G. Stanley: "Adolescence" (1904), II, 321.

CHAPTER TWO

CONNECTION BETWEEN BODY AND SOUL

I. CURRENT THEORIES

There are many divergent theories (16) as to the connection between body and soul. They may be divided into two classes—monistic and dualistic. Monism holds that man consists of only one real essence, either matter only, or mind only. Dualism holds that man consists of two essences, matter and mind, or body and soul. Three types of Monism will be noted—Idealism, Materialism and the Double Aspect Theory; and three types of Dualism—Parallelism, Incarcerationism and Interactionism

1. Idealism

Idealism, also known as Spiritualism and Spiritism, maintains that only the soul is real. This theory is in direct opposition to Materialism. Idealists talk about the body, but not in the sense that it is an essential part of man and a real thing. Ample illustration of this view can be found in Christian Science. Mrs. Eddy's "Science and Health," the text book of this cult, says: "All is mind; matter is but belief and error." Again it says: "Man has neither birth nor death." In Mark Twain's book, entitled "Christian Science," he relates an interesting experience he had with this philosophy. While up in the mountains he had fallen over a cliff and had broken some bones. There was no doctor at hand, therefore a Christian Scientist practitioner, a woman living near by, was summoned. She came, gave Mark to understand that he had not broken any bones and had no pain, for there were no such things as bones and pain, that nothing exists except mind, and mind cannot feel pain. In making a sweeping gesture to emphasize her remarks she struck her hand on a pin in her dress

and promptly let out a lusty "ouch." The maid, just then entering the room, happened to step on the cat's tail, causing it to emit a woful screech of pain. Mark asked if the cat, too, had no pain, but just imagined it had. No, the cat had neither body nor mind, hence no pain and no imagination of pain. We reject this theory because it denies the reality of matter.

2. Materialism

According to Materialism man consists of body, or matter, only. Materialists may talk about soul, or mind, or spirit, but not in the sense that soul is anything essential to man on a par with matter. Soul is an attribute of matter, just as attraction and repulsion, heat and light, are attributes. Man is a very highly organized automatic machine, a very wonderful sort of jumping jack. You pull the string and the jumping jack wiggles. You dial a telephone and soon you hear a response. A man hears a signal of warning and steps back to avoid the danger. The man, in doing so, was a mere automaton. Spencer, in his "Facts and Fancies," says: "I am but a piece of animated clay, equipped with a nerve system and in some mysterious way connected with a big dynamo called the world. Very soon now the circuit will be cut and I will fall into unconsciousness and nothingness." He adds the brief commentary: "Yes, I am sad, unutterably sad, and I wish in my heart I had never heard of the intellectual man with his science, philosophy and logic." We reject this theory because it denies the reality of soul.

3. Double Aspect Theory

According to the Double Aspect Theory "consciousness and neural activity are simply two aspects of the same experience" (17), matter and mind are two sides of the same thing. "There are not two separate factors, the psychological and the physiological, running parallel to each other, but there is one reality which has two aspects—the one being internal or subjective, the other, external or objective. The two are inseparable, and yet

different, as the internal and the external curves of a circle. . . . The soul is not body, and the body is not soul, but they are one, of which the soul is the inner, and the body, the outer aspect" (18). We reject this theory because it denies that the soul and the body are two separate essences.

4. Parallelism

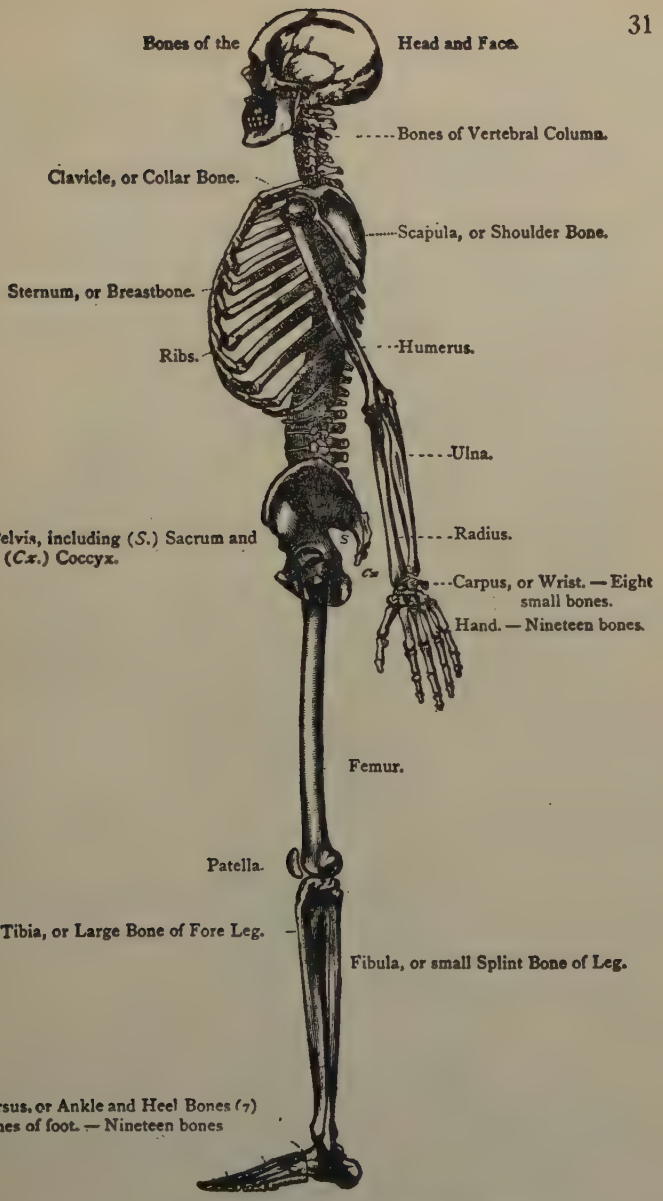
According to Parallelism there is a real soul and a real body, existing side by side, or rather, the soul within the body, but mutually independent of each other. This theory has been defended by Spinoza, Leibnitz and many others. Spinoza (19), for example, believed that for every bodily process there was a mental state or process; these ran parallel, but did not influence each other in any way. Leibnitz (20) maintained that soul and body do not influence each other, but both proceed together like two clocks started together in a divinely pre-arranged harmony. We reject this theory because it denies the fact that body and soul influence one another.

5. Incarcerationism

According to Incarcerationism the soul is a pure spirit incarcerated, or imprisoned, in the body and always hampered, but never helped, by the body. Plato (21) thought that this imprisonment was due to crimes committed during a former life. We reject this theory because the soul has never had a pre-natal existence and is not a prisoner within the body.

6. Interactionism

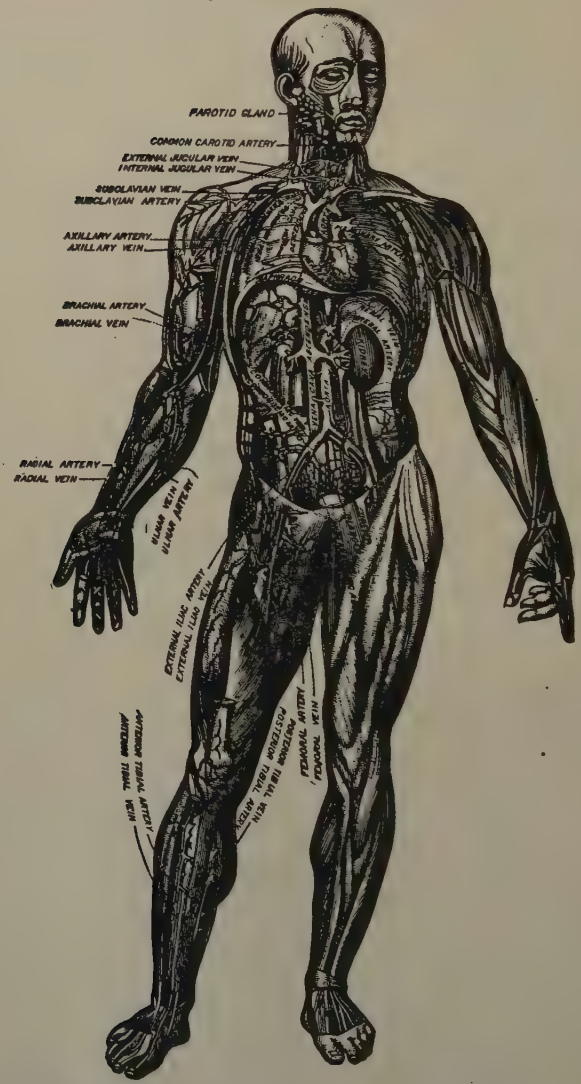
According to Interactionism body and soul are wedded together until parted by death. The body is the House Beautiful, the Palace Wonderful; the soul is the Royal Occupant, the Inmost Self. The union of the two is in perfect suitability to their occupation here on earth. Health and vigor of body go hand in hand with activity and happiness of soul. "A sound mind in a sound body," says the proverb, and describes the general



The human skeleton, showing position of bones.

Fig. 5. THE BONY FRAME

(From Frank Overton's "Applied Physiology, Advanced", 1897, p. 856. copyright, 1897, 1908, 1910, by American Book Co., publishers. Reprinted by permission).



Some of the Principal Organs of the Chest and Abdomen. (Blood-vessels on the left; muscles on the right.)

Fig. 6. THE MUSCULAR AND CIRCULATORY SYSTEMS
(From Albert F. Blaisdell's "Practical Physiology," 1902, p. 191, by permission of Ginn & Co., publishers.)

rule. Says the Bible: "And whether one member suffereth, all the members suffer with it; or, one member is honored, all the members rejoice with it" (1 Cor. 12:26). This view is sound, because it accepts the fact that both soul and body are real and influence each other.

II. INFLUENCE OF THE BODY UPON THE SOUL (22)

1. The Bony Frame

The skeleton is the framework of the body, and serves as the basis of support of the muscles and as a protection of the vital organs. Of the parts of the frame special mention should be made of the hand as one of the most marvelous of the instruments by which man has been able to rise to higher material and spiritual levels. The bones have played their part in keeping body and soul together and in performing the daily toil and the great deeds of history.

2. The Muscles

The 200 or more bones are moved by about 500 muscles, which are attached to them, and which give the body its graceful form. These thrive best upon steady and hard work, proper nourishment and rest. The amount and quality of work determines very largely the growth and health of the muscles themselves and the status of the rest of the body, and, in a large measure, the soul as well.

3. The Digestive System

The body is constantly undergoing wear and repair. The whole body is said to be renewed every seventh year, some parts of it much oftener. The worn-out body hungers and thirsts after nourishing food and drink, sleep and rest. This process of wear and repair has a powerful influence on the soul. Drunkards have pawned their babies' shoes for a glass of strong drink.

Mothers have devoured their children to satisfy their hunger. Even a person's temperament, or natural disposition, is no doubt to a considerable extent dependent on the way in which his digestive system is equipped and functions. According to an ancient theory there are four main classes of temperaments—phlegmatic (or lymphatic), sanguine, choleric (or bilious), and melancholic. The ancient doctors taught that the body contained four fluids—lymph, blood, bile and gall, and that the excessive amount of any one of these in the body determined both the general state of the body and the general temperament of the soul. Phlegmatic people are slow and easy going; the sanguine are quick and excitable; the choleric are strong and aggressive; the melancholic are deep and intense. James is supposed to have had a phlegmatic temperament; Peter, a sanguine; Paul, a choleric; and John, a melancholic. Two of the fluids above-mentioned—bile and gall—belong to the digestive system, and the other two—lymph and blood—belong to the circulatory system (23).

4. The Circulatory System

The heart is the central pumping station. It sends the products of digestion to the worn-out tissues of the body and carries off the waste tissues. An amount of blood equal to the whole quantity in the body passes through the heart every minute. It has just been stated that the sanguine and lymphatic temperaments are said to be deep rooted in the circulatory system. Whether we accept this explanation or not, it must be apparent to all that the condition of the physical heart does affect the workings of the soul. Thus, when the heart is weakened in its action to such an extent that little blood is sent to the brain, there is a loss of consciousness called fainting. Men take strong drink to stimulate their heart so that they shall think and feel and will more vigorously. By many it has been held that the heart is the seat of the soul. See Chapter Three.

Fig. 7. THE NERVOUS SYSTEM

(From George Wells Fitz' "Principles of Physiology and Hygiene," 1906, p. 221, by permission of the author and Henry Holt & Co., publishers.)

5. The Respiratory System

All animal life is dependent upon fresh air for its existence. We may live without food for many weeks, without water for several days, but we can live without air only a few minutes. The lungs inhale pure air and exhale waste. It is the impure air that makes the sound of speech and song, as the current passes over the vocal cords. Bad air breaks down the body and makes the soul stupid and drowsy. Good air improves the health, adds to mental vigor and moral courage.

6. The Nervous System

The nervous system consists of brain, spinal cord and a vast network of nerves. The brain, as the center of the system, is connected by means of nerve threads —of microscopic size—with all parts of the body. Every excitation from without is reported by some specific nerve to the brain, and results in some kind of response. It is by means of the nervous system that the soul gets into touch with the outer world. Injury to the brain, spinal cord or nerve lines and nerve ends, is accompanied by a corresponding disturbance in the workings of the soul. The pain in toothache is caused by something irritating the nerve in the tooth. A hard blow on the head produces unconsciousness. Again, the most intelligent animals are those in which the size of the brain and complexity of the nervous system are greatest. In this regard, man, on account of his vast superiority over all animals, is in a class by himself.

7. The Special Sense Organs

Ordinarily we reckon only five special senses—sight, hearing, taste, smell and touch, with eyes, ears, mouth, nose, and skin as the corresponding sense organs. Upon closer examination touch is found to be complex, consisting of simple sensations, such as, pressure, pain, cold and warmth, and various combinations of these. In addition to these there are also various other more or less complex sensations, such as, sensations from mov-

ing muscles, strain in tendons, gliding in joints, sensations of position and dizziness, sensations from the digestive, circulatory, respiratory and sex organs. Each of these organs has its own peculiar nerves. Thus, the eye is the end of the optical nerve, the ear the end of the auditory nerve. All the nerves eventually converge in the brain, where the messages are received and interpreted. Each of the sense nerves is a pathway of knowledge; each nerve-end, a gateway. The eye is easily the most important avenue, but the ear is a close rival for first honors. The body as a whole is as symmetrical as it is intricate, and all parts and functions unite to form one perfect unit, closely sympathetic with the soul which dwells in this palace of clay.

III. INFLUENCE OF THE SOUL UPON THE BODY (24)

1. The Bony Frame

When a person is happy, his footsteps are light; when sorrowful, they are heavy. A beckon of the hand asks you to come; a wave of the hand, to depart. The head is bowed in thought and the carriage is erect in pride. These are examples of the soul's influence on the frame.

2. The Muscles

No servant was ever more obedient or faithful than the muscles in indicating the various states of the soul, nearly always by a telltale expression of the face. Momentary content and habitual disposition are mirrored on the face. Smiles and scowls flit across it; vice and virtue are stamped there.

3. The Digestive System

The saying, "Laugh and grow fat," indicates that a happy mood will help the digestive organs to function well. On the contrary, a sour mood will upset digestion. The stomach movements stop operation during

anger, the salivary as well as the gastric juices quit flowing. Deep and passionate excitement stimulates the digestive organs into sympathy. The Bible frequently refers to the influence of the feelings upon digestion, as, for example: On account of sorrow the intestines are in pain (Jer. 4:19), the liver is poured out upon the earth (Lam. 2:11), when man grieves, he is pricked in his reins (kidneys); when he rejoices, they exult (Ps. 73:21; Prov. 23:16).

4. The Circulatory System

To the heart are attributed all the degrees of joy and sorrow. In Scripture language despondency weakens the heart (Deut. 20:8), anguish crushes it (Jer. 23:9). Convictions and creeds, ideals and longings, the pangs of a bad conscience and the peace that passeth understanding, all are referred to the heart, all in some way affect the working of the heart, and, in fact, the whole circulatory system. The blood rushes fiercely along in passion and moves slowly in sorrow. In shame it burns along the face and brow and quickly colors them with a crimson blush.

5. The Respiratory System

The state of the soul affects also the breathing. In excitement we breathe heavily, deeply and often irregularly. When downcast, we scarcely breathe at all.

6. The Nervous System

When the soul is keenly attentive or much excited, the nerves are wide awake; when it is listless or indifferent, the nerves are irresponsive. Courage lost, a man is said to have lost his nerve. Many a bad nervous trouble is due to a bad conscience. In getting peace with God, David experienced also a change in bodily health (Ps. 32).

7. The Special Sense Organs

The state of the soul is abundantly expressed by the sense organs; as, for example, the sparkling eye, the at-

tentive ear, the sympathetic lips, the kindly touch. All in all, a healthful state of the soul promotes a healthful state of the body. What some people need is soul care and cure rather than bodily care and cure. Jesus, the Great Physician, was in the first place a physician of the soul.

A. QUESTIONS AND ASSIGNMENTS

I. Define and illustrate the words: Monism and Dualism; Materialism, Spiritualism, Double Aspect Theory; Parallelism, Incarcerationism, Interactionism.

II. Define and illustrate the influence of each of the parts of the body on the soul: The bony frame; muscles; digestive system; circulatory system; respiratory system; nervous system; special sense organs.

III. In like manner discuss the relation of the soul to the body.

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CHAPTER THREE

PHYSICAL FOUNDATIONS: HEART

Two points have so far been established, namely, that man consists of body and soul, and that the body and soul are closely interrelated during this earthly life.

We now want to learn something more about the interaction between body and soul. We know that every country has its capital city where the powers that be live, and from where, through proper channels, they govern the whole realm to its remotest confines. If the body is likened to a material country and the soul is thought of as the ruling power of that country, then where is the capital city located and how does it extend its authority to every part of its territory? We want a map of this Land of the Soul, with exact location, at least of the principal centers and thoroughfares. There was once a man, says Halleck (25), who had often heard the Turkish question and the approaches to the Black Sea discussed. He was haunted with a sense of unrest whenever he heard the Bosphorus mentioned. Finally he could no longer endure the mental disquiet over his ignorance, so he secured an atlas and studied the map. In the same way the mind demands a map of the nervous system and the brain and the heart and other landmarks of the human body which are essential to the workings of the soul. It is clear that the five sense organs—eyes (sight), ears (hearing), nose (smell), mouth (taste), and skin (touch)—are five great ports of entry to this country and that the nerves are the railroads and telegraph lines. But, strange to say, the authorities on this subject do not agree as to what is the capital city, the seat of the soul. The ancient authorities rather favor the heart; the modern authorities positively favor the head. "Tell me," said Shakespeare, "where is fancy bred, or in the heart, or in the head?" (26).

I. THE ARISTOTELIAN VIEW

One of the greatest of ancient philosophers was Aristotle. He lived in Greece, 385-322 B. C. He was the profoundest and most many-sided scholar of antiquity and is still very modern in his methods of scientific investigation. He set about to investigate the functions of the soul. Thus, sensation is a faculty whose function is discrimination, as: Black and white in vision, sweet and bitter in taste. Every faculty has its function; every power, its processes. Aristotle set out also to prove that the soul is located in the heart and not in the head, an argument considered by J. M. Baldwin (27), but for our knowledge of nerve and brain, as a model of inductive reasoning. For 2,000 years the scholars of the world, with few exceptions, believed that the heart is the central seat of life and that the brain holds a secondary position in the organism.

II. THE BIBLICAL VIEW

1. The Heart the Seat of the Soul

In the very nature of the case the language of the Bible had to be simple, direct, clear and as literal as possible. Of course, at times it employs figurative language, but always in such a way that it makes the thought clearer, not more obscure. "The Lord is my Shepherd," is a figurative expression, and is understood as such. "God formed man of the dust of the ground," is a literal expression, and is understood as such. Some interpreters try to discover in every plain Scripture statement some figurative meaning. This is not fair. With respect to the heart, sometimes the Bible plainly means the physical heart; at other times, the term is used figuratively, meaning, for example, courage. In the Bible passage: "The Lord hath not given you a heart to know, and eyes to see, and ears to hear, unto this day" (Deut. 29:4), ears are physical organs to hear with, eyes physical organs to see with, and heart a physical organ to know with. In the sentence from Ps. 55:4: "My heart is sore pained within me,"

the physical heart is meant. In 2 Sam. 17:10 the expression, "whose heart is the heart of a lion," is a figure of speech and means bravery.

One of the figures of speech that frequently occurs in Scripture is the metonymy. This is a designation of an object by one of its accompaniments. There are several kinds of metonymies, as, cause being put for effect, the sign for the thing signified, the container for the thing contained, etc. Thus, in the sentence: "A man keeps a good table," the container is used for the thing contained, the meaning being: "A man sets his table with good food." And in the sentence: "The imagination of man's heart is evil," the container is used for the thing contained, the meaning being: "The imagination of man's soul is evil." Heart is the container, and soul is the thing contained, that is, the soul occupies the heart as its central organ. The Bible uses the word heart to mean soul, or inmost soul, many hundred times, no doubt according to the principle that the container is used for the thing contained.

1. What does the Bible say as to the locus, or seat, of the soul? In the first place, it says that there is a soul within the body. The soul of the son of the widow of Zarephath left his body and came back (1 Kings 17:22). The soul of the daughter of Jairus departed from her body and returned (Luke 8:55). In these two instances the statement is literal. In Job 4:19 the body as the home of the soul is called figuratively a house of clay; and in 2 Cor. 5:1 it is called a tent-house, or earthly tabernacle.

2. In the second place, the Bible says in plain, unequivocal language that the "soul of the flesh is in its blood" (Lev. 17:11). And since the soul is located in the blood, the Bible says figuratively that the soul is the blood: "The flesh with its soul, which is its blood, ye shall not eat" (Gen. 9:4).

3. In the third place, the heart, being the central chamber of the blood-life, is naturally the central chamber of the soul-life, for the soul is deliberately and plainly declared to reside in the blood. The heart is the center of the

bodily life, for all the blood goes through the heart, carrying its nourishment to the remotest parts of the body (cf. Gen. 18:5; 1 Kings 21:7; Acts 14:17). The heart is the center of the soul life, the chief dwelling place of the soul, for the soul is in the blood and the blood courses through the heart. Because the heart is made the headquarters of the soul, it is substituted for the term soul, made a synonym of soul, and all the powers of the soul are ascribed to it. Where there is much smoke, there must be some fire. The reason why the Bible invariably calls the soul "heart" instead of "head," or "brains" is, that the heart, and not the head, or the brain, is the physical organ of the soul. This does not mean that the soul does not use the brain and the other organs of the body in carrying on its psychic work. It does. The soul is immaterial, and therefore has no extension. It is simple, and therefore cannot be divided. It is totally present in the whole body, and in each and every part of the body. From the heart as a center the soul pervades the whole body manifesting itself everywhere locally, but yet not itself locally fixed. In saying that the heart is the seat of the soul we mean that the heart is the chief organ through which it operates. It operates through other organs also, notably the brain, the nerves and the sense organs, with which it is intimately connected.

2. Proof Passages

A few examples from Scripture showing that the heart is the center of soul life:

(1) *Knowing*

1 Sam. 21:12. "David laid up these words in his heart" (memory).

Deut. 29:19. "I walk in the imagination of mine heart" (imagination).

1 Kings 3:9. "Give thy servant an understanding heart" (understanding).

Esther 6:6. "Now Haman thought in his heart" (thinking).

Matt. 9:4. "Wherefore think ye evil in your hearts?" (thinking).

Mark 2:8. "Why reason ye these things in your hearts?" (reasoning).

Luke 2:19. "Mary pondered them in her heart" (reflection).

Luke 24:38. "Why do thoughts arise in your hearts?" (thinking).

John 12:40. "Nor understand with their heart" (understanding).

Rom. 1:21. "Their foolish heart was darkened" (understanding).

(2) *Feeling*

Ex. 4:14. "He will be glad in his heart" (joy).

Deut. 28:65. "The Lord shall give thee there a trembling heart" (fear).

2 Sam. 6:16. "She despised him in her heart" (despising).

1 Kings 4:29. "God gave Solomon largeness of heart" (great-heartedness).

2 Chron. 25:19. "Thine heart lifted thee up to boast" (pride).

Prov. 14:13. "Even in laughter the heart is sorrowful" (sorrow).

Matt. 11:23. "I am meek and lowly of heart" (humility).

John 16:6. "Sorrow hath filled your heart" (sorrow).

Eph. 5:19. "Making melody in your heart" (joy).

2 Pet. 1:22. "Love one another with a pure heart" (love).

(3) *Willing*

Rom. 10:1. "My heart's desire is" (desire).

1 Sam. 27:1. "David said in his heart" (deliberation).

1 Cor. 7:37. "And hath so decreed in his heart" (choice).

Dan. 1:8. "But Daniel purposed in his heart" (purpose).

Ex. 25:2. "That giveth it willingly with his heart" (act).

(4) *Conscience*

Rom. 2:15. "The work of the Law written in their hearts" (fundamental).

Ex. 8:32. "Pharaoh hardened his heart" (veneer).

1 Sam. 24:5. "David's heart smote him" (reproach of conscience).

Acts 2:37. "They were pricked in their hearts" (reproach of conscience).

Ps. 32:11. "Shout for joy, all ye that are upright in heart" (approval of conscience).

Heb. 4:12. "Word of God is quick . . . discerner . . . of heart" (piercing the veneer).

Ps. 51:10. "Create in me a clean heart" (effect of God's Word).

(5) *Faith*

Gen. 45:26. "Jacob's heart fainted, for he believed them not" (lack of natural faith).

Mark 11:23. "Shall not doubt in his heart" (supernatural faith).

Luke 24:25. "Slow of heart to believe" (supernatural faith).

Acts 8:37. "If thou believest with all thy heart" (supernatural faith).

Rom. 10:10. "For with the heart man believeth" (supernatural faith).

The heart, then, according to Scripture, is the center of the life of the body and of the soul. The faculties are located there. We know in our hearts, feel in our hearts, and will in our hearts. The heart is the center of the moral life, the laboratory and place of issue of all that is good and evil in thoughts and desires, words and deeds (Mark 7:21; Matt. 12:34; Prov. 4:23). With the heart a man believes (Rom. 10:10), or disbelieves (Heb. 3:12). The heart is the temple of the Triune God (Eph. 3:17; 2 Cor. 1:22), or the den of devils (Matt. 12:45). God sows His Word in the heart (Matt.

13:19; Luke 8:15). He inspires the heart (2 Cor. 8:16). He gives His peace to the heart (Col. 3:16), and His love (Rom. 5:5). The heart is a closet of secret communion with God (Eph. 5:19), a great mysterious deep, which only God fathoms (Jer. 17:9; Rom. 8:27).

3. Conclusions

It is plain from these and many other Bible passages that the heart was held by the Hebrews to be something more than a central pumping station, forcing the blood to all parts of the body. It is incredible that the Lord, in dictating the Bible should have insisted on speaking about the heart as the chief organ of the soul when He meant the brain. When we speak of Washington as the capital of the United States, we mean Washington, and not New York or some other place. From some points of view New York can be considered the most important city, and the brain likewise can be regarded as more important than the heart. Both are essential to the life of the body and the workings of the soul.

Modern psychology rejects this doctrine. It teaches that the brain is the seat of the soul, which it calls mind. The physical heart is seldom or never mentioned in a modern book on psychology. In popular and theological language heart is either a synonym of soul, or it means inmost soul, being figurative, and not literal, in both instances. Such expressions as "Give me your heart," "Open your heart," and "With all your heart," are then constructed as figurative, and have at best only the vaguest reference to the material heart.

Note that just as the ancients regarded the physical heart as an actual organ of the soul, so also do moderns regard the physical brain as an actual organ of the mind. The truth is, that both heart and brain are organs of the soul, only with different functions. Just as the function of the eye is different from that of the brain, so also is the function of the brain different from that of the heart. The eye reports to the brain, and the brain reports to the heart as the inmost soul. In harmony with this, everybody

speaks in terms of trichotomy as well as dichotomy. See Chapter One. And everybody speaks of the education of the heart as well as the head, meaning that education

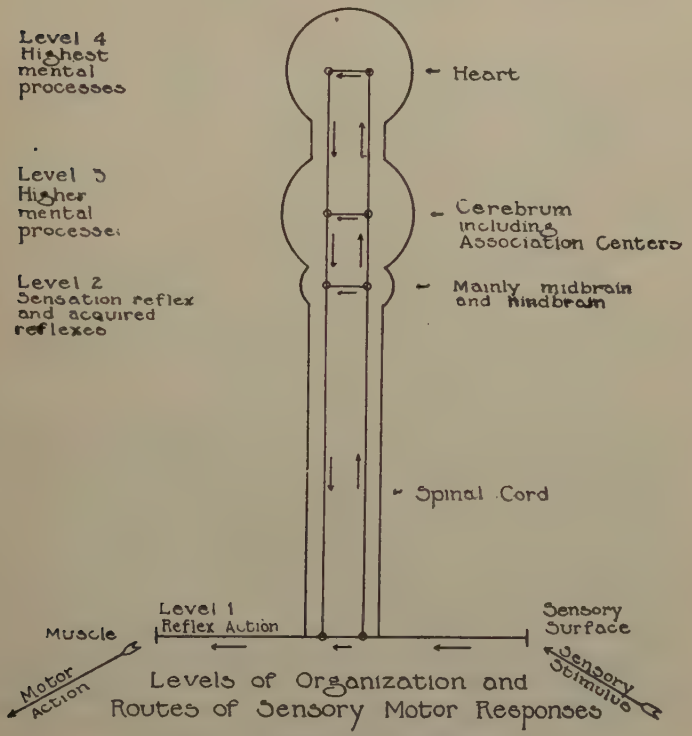

Fig. 8. LEVELS OF REACTION

The simplest stimulus—response unit consists of a sensory nerve, the spinal cord and a motor nerve. The reaction is prompt and direct without bothering the brain at all, and is called reflex action, or reaction of the first level. Level 3 takes care of more complex processes which require the use of the brain. Level 2 controls the semi-reflex actions of habits. The most important messages go to the heart-level—Level 4.

should give something besides knowledge—it should give high ideals, deep emotions, a trained will, an illumined conscience and Christian faith, in short, the best kind of

learning. This harmonizes with the common usage in calling intellectual education an education of the mind, moral and religious education an education of the heart, and vocational education an education of the hand. Among scholars who during the last century have declared themselves in favor of both the heart and the head as organs of the soul may be mentioned J. T. Beck, A. Dächsel, F. Delitzsch, Fr. Nasse and G. F. Oehler (28). As Oehler expresses it, "the heart is the place where the soul is at home, and becomes conscious of its doing and suffering, as its own" (29).

A. QUESTIONS AND ASSIGNMENTS

Why inquire about the physical foundations of consciousness? Illustrate. I. Discuss the Aristotelian view as to the heart. Its influence. II. The Biblical view. Give Bible illustrations as to the seat of the soul. The heart as the center of knowing. Feeling. Willing. Conscience. Faith.

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CHAPTER FOUR

PHYSICAL FOUNDATIONS: HEAD

By head is meant the brain within the head and the spinal cord and nerves connected with the cord and the brain. The brain, cord and nerves taken together are known as the nervous system.

I. THE NERVOUS SYSTEM IN GENERAL

1. Parts

The nervous system may be divided into three parts: (a) The central nervous system, consisting of the brain and spinal cord; (b) The peripheral nervous system, consisting of the nerve fibers running from the brain and the spinal cord to all parts of the body, together with the end organs of these fibers; (c) The autonomic, or sympathetic, system, consisting of a number of ganglia that are connected with each other and with the sensory roots of the spinal nerves by a net work of gray nerve fibers.

2. Physiology

The human body is a wonderful complex of systems, many in one. The bones form one system, the muscles another. And then there are the digestive, respiratory, circulatory and nervous systems, each one distinct, yet serving all the others. The nervous system reaches out to every tissue in the body, animates and governs all organic movements, voluntary or involuntary. There can be no physical communication between the parts of the body, no co-ordination, without the nerves. There can be no sense impressions, no knowing, feeling, willing, conscience and faith, without the nerves.

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3. Psychology

The body, as stated, is made up of a great number of complicated organs, each doing its own part in the life and work of the body and soul. These organs should work in harmony for the good of the whole. The individual must know whether such harmony is maintained, and he must be warned if any organ fails to do its particular duty. This information is supplied through the sensations. The general sensations report whether the body needs food, clothing, rest, sleep, etc. The special senses give information about the world around us. All this sensory knowledge is telegraphed to headquarters. Some of it is intercepted before it reaches the brain and is attended to at once; some of it is passed on to the brain and is attended to there; and some of it is passed on clear to the heart and is attended to there. If the toe of a sleeper be tickled, the sensory nerve at that point will report the stimulation to the spinal cord, and the cord will at once, without waiting for a command from the brain, withdraw the foot. This is called reflex action. Sometimes, as when we wink on account of a strong light, the sensation reaches the brain, and hurriedly passes on in motor action, before the brain has had time to decide to wink. This is conscious reflex action. If the sensation reaches the brain and calls for deliberation, it will be more complicated and slower than the types just named. If it is of very serious consequence, it will be reported also to the heart. Two nerves are connected with the heart—the pneumogastric and the sympathetic. The character of the message determines whether the heart is to be depressed or uplifted. It is possible that the message can completely stop the beating of the heart and cause death. Fortunately, the heart and the head do not have to bother with all the matters that concern our body and soul.

4. Value

Man has no "vestigial" organs, as the evolutionists maintain, and no one has ever made any reasonable sug-

gestion as to what should be added or what could be omitted from the human body to make a more ideal home for the soul. God made man, and saw what He had made, and, behold, it was very good (Gen. 1:31).

The dependence of the soul upon the brain is self-evident. If the brain is undeveloped or injured there will surely be some psychical defect, as, feeble-mindedness or insanity. The dependence of the soul upon the nerves is just as obvious. Suppose, says Halleck, that a child were born without a nerve leading from his otherwise perfect brain to any portion of his body. The child could, of course, not see, or hear, or smell, or taste, or touch. His faculties would for this life remain shrouded in Egyptian darkness. On the other hand, the child born with a healthy brain and proper nerve connections would immediately upon birth begin to receive sensations from the outside world (30). "Without his senses," says Taylor, "the child lies dormant in his cradle, sleeping away his days, not even knowing of an outer world, nor dreaming of his own mighty possibilities. With his senses he explores the universe round about him and eventually becomes its master" (31). It is remarkable how long the soul can treasure up its experiences. An old man said that he could remember having seen a rainbow on a summer's evening, seventy years before (32). That is, in terms of nerve psychology, his glance at the rainbow made an impression on his brain cells which seventy years had not been able to efface (33).

II. THE CENTRAL NERVOUS SYSTEM (34)

1. Parts

The central nervous system has two main parts—the brain and the spinal cord. The brain is the part within the bones of the skull, and is divided into fore-brain, mid-brain and hind-brain, each of which has several subdivisions. The spinal cord is the part within the spinal column, or backbone, and runs the length of the backbone from the hind-brain downward.

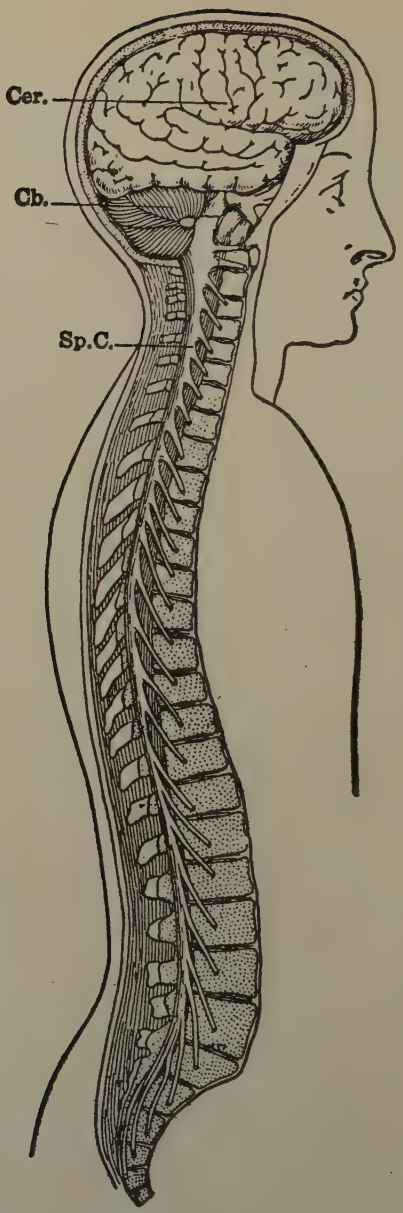


Fig. 9. THE CENTRAL NERVOUS SYSTEM IN OUTLINE

Cer., cerebrum; Cb., cerebellum; Sp. C., spinal cord. (From W. B. Pillsbury's "Fundamentals of Psychology," 1922, p. 26. Copyright, by the Macmillan Co. Reprinted by permission).

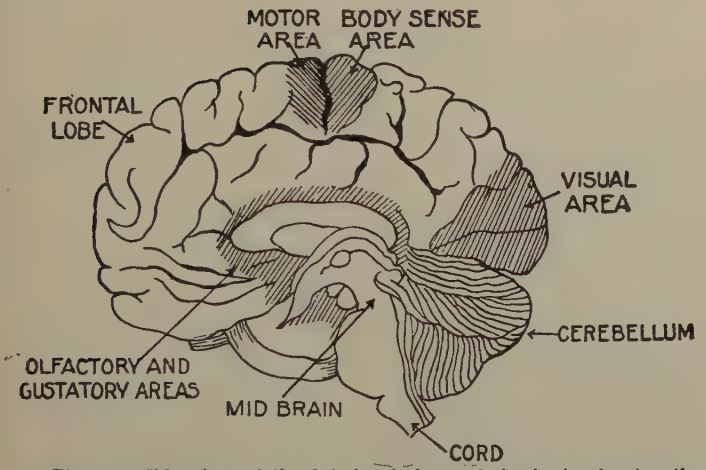


Fig 10. Side view of the left hemisphere of the brain showing the important fissures and lobes and the primary visual, auditory and body sense areas.

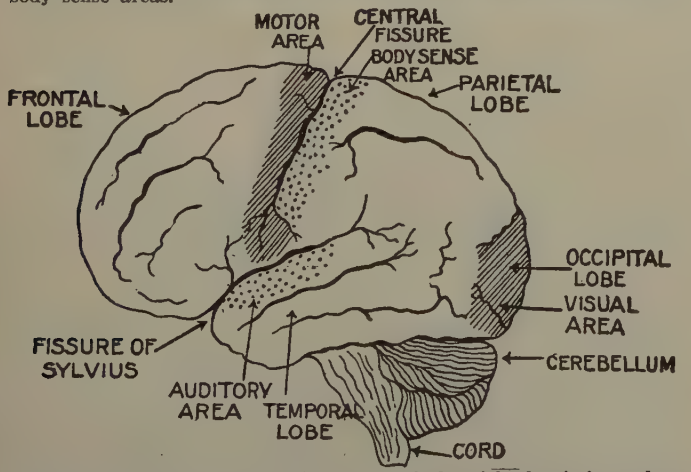


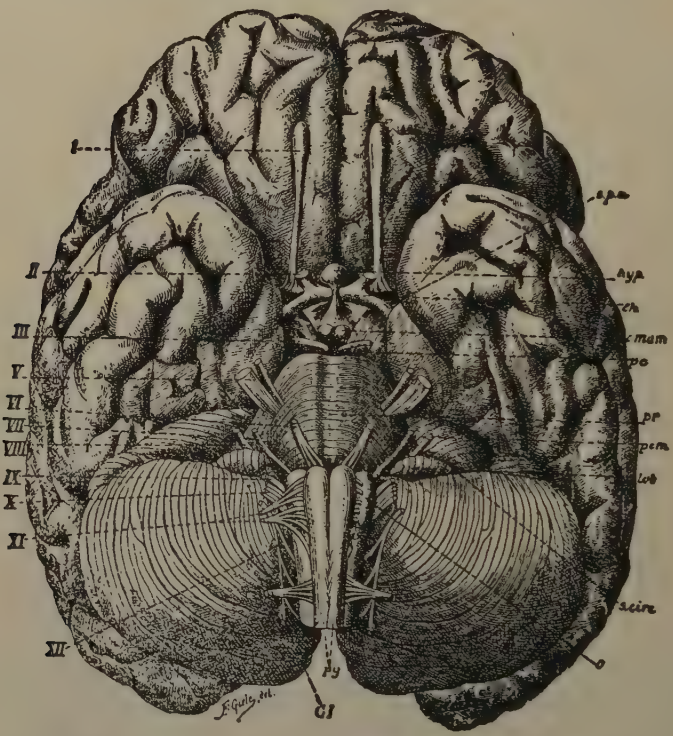
Fig. 11. The inner (mesial) surface of the right hemisphere showing parts concealed in Figure 10. The olfactory and gustatory areas are also shown.

Figs. 10 and 11. ASSOCIATION AREAS

(From Arthur I. Gates' "Psychology for Students of Education," 1923, p. 75. Copyright, by the Macmillan Co. Reprinted by permission).

2. Physiology

The brain is the largest and most complex mass of nerve tissue in the body. The average weight of the adult



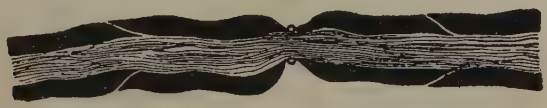
Under Surface of the Brain. (Van Gehuchten.) The Roman numerals at the left margin of the figure indicate the 12 cranial nerves; *hyp.* hypophysis; *ch.* optic chiasm; *c. mam.* mammillary body; *pc.* peduncle of the cerebrum; *pr.* pons; *o.* olive; *py.* pyramids; *Cl.* first spinal nerve.

Fig. 12. THE BRAIN—UNDER SURFACE VIEW
(From Ladd & Woodworth's "Elements of Physiological Psychology," 1911, p. 76, by permission of Charles Scribner's Sons, publishers.)

brain is about 50 ounces for men and 45 for women, a little more than two per cent of the weight of the body. While the brain weighs only about one forty-fifth of the

body, it uses one-eighth of all the blood in the body. It needs much blood to do the great work that it has to perform.

The brain, as stated, has a fore-brain, mid-brain and hind-brain. The fore-brain comprises the cerebrum, the thalamus and various bulbs, tracts and ventricles. The cerebrum is the brain proper, being about 85 per cent of the whole brain, and filling the upper part of the skull. It consists of two halves, the right and left hemispheres, each of which is subdivided into three lobes, separated by deep fissures. The outside of the brain has a layer of gray matter about one-eighth of an inch thick. Under



Longitudinal and transverse sections of a medullated nerve fibre. The myelin sheath is shown in black, the central protoplasm shows its fibrous structure From Barker, after Biedermann.)

Fig. 13. A NERVE FIBER (Magnified)
(Consult Barker)

(By permission of D. Appleton and Co., publishers.)

the gray matter, which is composed of cells, the brain is white and consists of nerve fibers. The outer gray matter, or cortex, is greatly increased in extent by furrows which dip deeply into the brain substance. The white fibers lie in bundles, and connect some distant organ with the cells in the cortex. Just beneath the cerebrum is a chamber called the thalamus, which is filled with gray matter and sensory fibers on their way to the cortex. The mid-brain is small in area and consists of several ganglia of fibers. The hind-brain consists principally of the cerebellum, the pons Varolii and the medulla oblongata. The cerebellum, or lesser brain, lies in the back of the cranium. Below and in front of the cerebellum is the medulla oblongata, or long marrow, which is an enlargement of the spinal cord at this point. The pons is a thick band of fibers almost encircling the medulla and joining the two halves of the cerebellum. The two halves

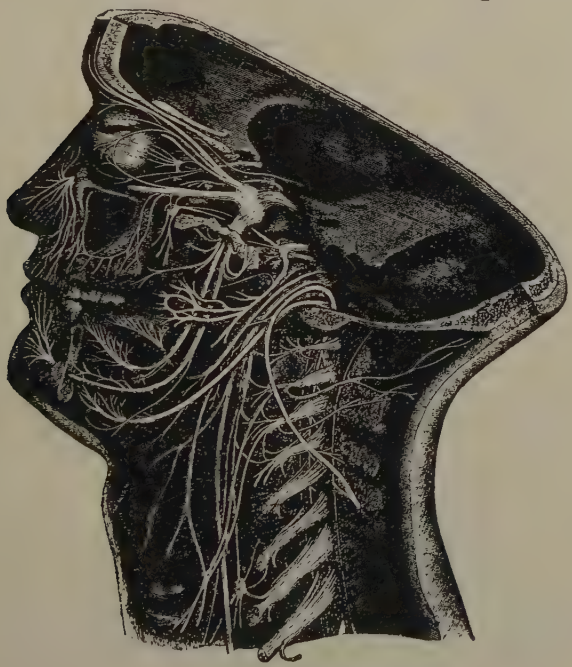
of the cerebrum are joined by strong bundles of fibers.

The spinal column is made up of 31 short bones, the vertebrae, and contains the spinal cord. The cord in turn

Fig. 14. CELL WITH SHORT AND MUCH BRANCHED AXONE
pr. cyl.—the axone
(From Ladd and Woodworth's "Elements of Physiological Psychology," 1911, p. 104, by permission of Charles Scribner's Sons, publishers.)

contains an inner mass of gray matter like an H in shape when seen in cross section, surrounded by columns of white matter. The gray matter is made up of cells; the white, of fibers. The spinal cord, like the brain, is pro-

tected by three coats. The brain and spinal cord are the center of the nervous system, and the nerves as distributing branches radiate from these to all parts of the body. From the base of the brain twelve pairs of cranial nerves are sent out, and from the gray matter on each side of the spinal cord 31 spinal nerves are given off.



The cranial nerves. (Quain.)

Fig. 15. SOME PERIPHERAL NERVES

(From George Wells Fitz' "Principles of Physiology and Hygiene," 1906, p. 236, by permission of the author and Henry Holt & Co, publishers.)

3. Psychology

The cortex of the brain is held to be the seat of the mind, hence the size of the brain and the abundance and complexity of gray matter no doubt bear a general re-

lation to the mental power of the individual. The nerves that carry messages to the cortex in the brain are called sensory; those that carry messages from the cortex are called motor. Different areas in the cortex communicate with different parts of the body. In the diagram on page 53 note that the visual center is in the back of the

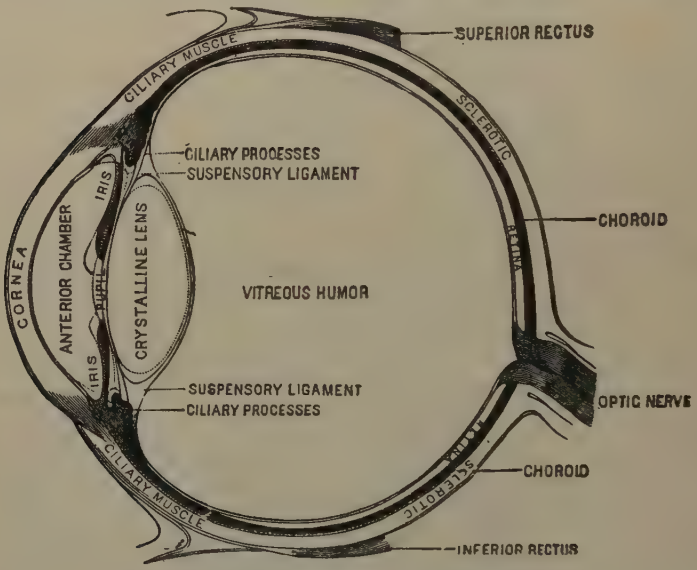
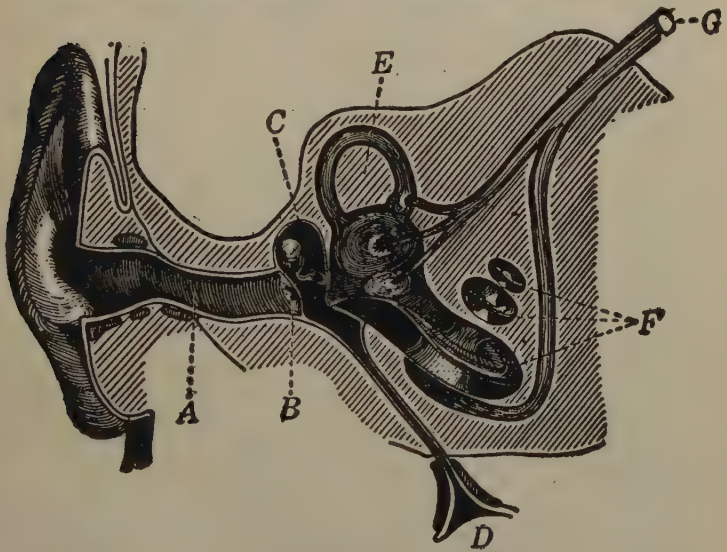


Fig. 16. CROSS-SECTION OF THE HUMAN EYE

(From Albert F. Blaisdell's "Practical Physiology," 1902, p. 323 by permission of Ginn & Co., publishers.)

head, the auditory in the side of the head, and the touch sensations right back of the Fissure of Rolando at the top of the head, with the motor area right in front of this fissure. There are association areas occupying portions of the cortex not occupied by the sensory and motor areas. The thalamus is a way station for impulses from the sense organs. The mid-brain, like the thalamus, is a sort of co-ordinating center. The cerebellum co-ordinates muscular movements and gives proper balance.

The medulla is the seat of a number of cranial nerves and centers for higher reflex action. The spinal cord is the main trunk line of the soul. It conducts impulses, sensory and motor, carrying sensations to the brain, and bringing back its orders. It is an independent center in



Cross-section of the human ear

Fig. 17. CROSS-SECTION OF THE HUMAN EAR

A, external auditory cavity; B, the tympanic membrane at end of external cavity; C, the middle ear, with hammer, anvil, and stirrup bones; D, Eustachian tube; E, semi-circular canals, organs of equilibrium; F, the cochlea, organ of hearing; G, auditory nerve.
(From Carl E. Seashore's "Introduction to Psychology," 1923, p. 411. Copyright, by Macmillan Co. Reprinted by permission).

reflex action, giving quick protection in case of danger and relieving the brain of tedious drudgery.

III. THE PERIPHERAL NERVOUS SYSTEM (35)

1. Parts

The peripheral nervous system includes all nerve fibers running from the central system, and their end organs.

There are 12 pairs of cranial nerves and 31 pairs of spinal nerves.

2. Physiology

The nerve fibers running to and from the central system are bundles of nerve threads. As the nerve passes inward, it constantly grows larger through the addition

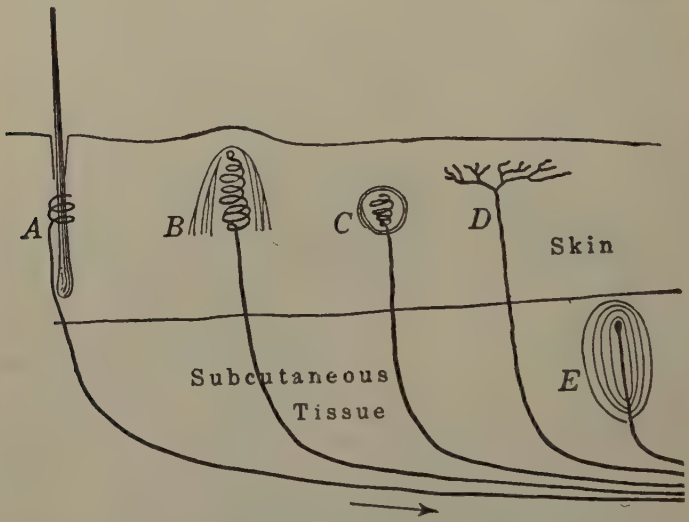


Fig. 18. SENSORY END-ORGANS OF TOUCH

A, a hair end-organ, coiling around the root of the hair—a motion of the hair stimulates the sensation of light pressure; B, the Corpuscle of Meissner, a touch end-organ of light pressure; C, the End-Knob of Krause, the end-organ of cold; D, free branched nerve-end, the pain-sense organ; E, the Pacinian Corpuscles, subcutaneous end-organs of heavy pressure. The end-organs of warmth are not indicated in the diagram.

(From Robert S. Woodworth's "Psychology," 1921, p. 199, by permission of Henry Holt and Co., publishers.)

of many threads; as it passes outward, it constantly grows smaller through the separation of the fibers. The simple fibers can not be seen by the naked eye. They are from 1-1200 to 1-100000 of an inch in diameter. A single nerve may consist of upward of 100,000 fibers.

Spies (36) estimated that in a single cubic inch nearly 6,000,000 fibers were packed, and the brain contains upward of 60 cubic inches. No city has as many telegraph wires entering it, perhaps not all the cities in the land together have as many telegraph wires, as have the spinal cord and brain of man. In addition to the fibers, another important element of the nervous system is the nerve cell. This is also microscopically small. Pillsbury (37) estimates that the nervous system has some 11,000,000,000 cells, crowded together for the most part within the brain and the spinal cord. The unit of the nervous system is the neurone, consisting of a cell body (cell) and two sets of fibers, the dendrites leading into the cell, and the axones leading out of the cell. The core of the cell body is gray and the sheath of the fibers is white, hence the gray and the white parts in the spinal cord and brain. The dendrites are short and bushy. The cells are of several sizes and shapes. The axones are long, hairlike extensions that may reach more than half the length of the body, and have an end brush similar to the dendrite. The axone of one cell comes near but does not touch the dendrite of another nerve. This place of near approach is called the synapse. It is believed that the message travels along the axone and jumps at the synapse over to the dendrite of the next neurone. The rate of impulse is from 25 to 250 feet per second. If the hand comes into contact with a hot stove, the heat will first be sensed, then touch, and last pain. Heat, touch and pain have each its own end-nerve and rate of conductivity. No one knows the exact nature of the impulse, whether it is electrical, chemical, mechanical, or what not.

The end organs are very wonderful structures, especially in the case of the special senses—the eye, the ear, the olfactory cells in the nose, the taste buds in the tongue and other parts of the mouth, the corpuscles in the skin for sensing warmth, cold, pressure and pain, and the nerve-plaques in muscles, tendons and other parts of the body.

3. Psychology

The end organs take note of stimulations and pass the message on to the central system. The ingoing, or afferent, nerves, are sensory; the outgoing, or efferent, nerves, are motor. In case of a hurry message, the spinal cord acts on its own authority and a reflex action is the result. Otherwise, the message is forwarded to the brain, and the brain gives an order to the motor nerves to act. The end organs of the special senses are very complicated. The eye, for example, has in its retina many cells with different functions, on account of which many different visual sensations can be experienced. The ear likewise has a whole forest of nerve ends to distinguish sound. Titchener (38) likens the eye to a camera that can distinguish 30,000 colors, and the ear he likens to a piano with 11,000 strings.

IV. THE SYMPATHETIC NERVOUS SYSTEM (39)

1. Parts

The sympathetic, or autonomic, system is divided into three groups of nerve ganglia—the cranial division, connected with the mid-brain and the upper part of the cord; the sympathetic division, connected with the middle part of the cord; and the sacral, connected with the lower part of the cord. A ganglion is a nerve center, or a group of nerve cells.

2. Physiology

The sympathetic ganglia, 24 on each side, have a network of branches reaching out to the heart, lungs, stomach, intestines, liver, kidneys and other abdominal and pelvic organs. They are intimately connected with each other and with the peripheral nerves by a network of gray nerve fibers. They are called sympathetic because they are sensitive to the needs of the vital and internal organs of the body. They are called autonomic because they control the functions of circulation, respiration, digestion, nutrition and other processes of organic life independently

The sympathetic system of nerves as connected with the spinal nerves and distributed to the various organs. (Quain.)

Fig. 19. THE SYMPATHETIC NERVOUS SYSTEM

(From George Wells Fitz' "Principles of Physiology and Hygiene," 1906, p. 230, by permission of the author and Henry Holt and Co., publishers.)

of the will or consciousness, with almost perfect autonomy. The heart beats of itself; the lungs and stomach work automatically in sleep as in wakeful moments. Each internal organ has a double set of sympathetic nerves, one to reinforce and another to inhibit its activity. The activity of these nerves can be much enhanced or suppressed under the influence of the peripheral and central nerve systems. Sight of good food, or mere thinking of good food, can increase the flow of gastric juice, and anger can check the work of the stomach for the time being. The pneumogastric and sympathetic nerves of this system are connected with the heart. The former is in turn connected with the restraining ganglia; the latter, with the exciting ganglia.

3. Psychology

This system superintends the workings of the internal organs of the body, thus relieving the brain of a great amount of work, much of which it could not do if it would. It receives messages from the brain and influences the vital organs, notably the heart, the seat of the soul. Hence the emotions are felt in the heart,—anger, jealousy, fear, worry, excitement, shock, sympathy, enthusiasm, etc.

V. THE GLANDULAR SYSTEM (40)

A word might be said also about the ductless glands. They depend upon the action of the sympathetic system. The thyroid glands are in the front part of the throat. When abnormally large they produce goiter. They secrete a fluid which promotes the growth of the brain. When these glands are defective, the brain will be too small, and the mental level will be subnormal. The pituitary body is a small gland on the under surface of the forebrain. It has three chambers, with three kinds of secretions, necessary for the growth of the bones, muscles and cortex. Cases of giantism and insanity have been traced to excessive secretions from this gland. The adrenal glands are near the kidneys. Their secretions in emotional excitement increase the heart beat and affect the liver. The pineal gland, located just under the cerebrum

at the back, was thought by Des Cartes to be the seat of the soul (41). Like so many other parts of the body that we know as yet so little about, the pineal gland has been held by some modern scholars to be one of the "vestigial" organs that once were of importance, but long

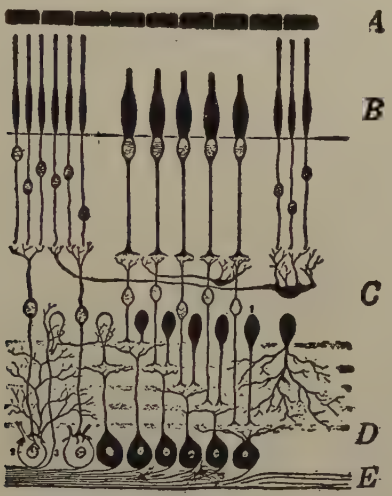


Fig. 20. CROSS-SECTION OF THE RETINA (Magnified)

A, a layer of pigmented cells, the visual purple;
B, a layer of rods and cones, the end-organs of vision;
C, a layer of bipolar cells, amplifying and transmitting the impulse;
D, a layer of nervecells;
E, a layer of axones uniting to form a branch of the optic nerve to the brain.
(From Carl E. Seashore's "Introduction to Psychology," 1923, p. 410. Copyright, by Macmillan Co. Reprinted by permission.)

since have quit functioning. When we were fish in the sea, say these evolutionists, this gland served as a rudder on the tail; and when we were lizards on land, the gland was an eye in the forehead piloting us through all danger. We must await further evidence before we can accept any evolutionistic interpretation. Meanwhile, as we think upon the marvellous riches and complexity of our bodily organization as a basis for psychical activities, profound

astonishment seizes us, and we feel humble because we can not penetrate or ever hope to penetrate into the mysteries of our own selves (42).

A. QUESTIONS AND ASSIGNMENTS

I. Discuss the nervous system in general as to parts. Physiology Psychology. Importance. II. The central nervous system in the same way III. The peripheral. IV. The sympathetic. V. The ductless glands.

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CHAPTER FIVE

PSYCHICAL FOUNDATIONS: CONSCIOUSNESS AND ATTENTION

It has now been shown that man consists of two essential parts—body and soul, or, matter and mind, both of which have a real existence. It has, furthermore, been shown that the soul and the body act upon each other as long as the soul occupies the body as its temple. Finally, it has been shown that the powers, processes and products of the soul rest upon physiological activities, such as, the power to see rests upon the possession of an eye and upon that eye's ability to function.

A study of the nervous system and the rest of the physiology of the body is not sufficient to explain the life of the soul. The soul powers, products and processes must themselves be studied one by one. The most characteristic and fundamental of the psychical manifestations are consciousness and attention.

I. CONSCIOUSNESS

1. Its Meaning

A street car ran into a truck and almost killed its driver. He was picked up unconscious. He was not aware of what had happened or what was going on about him. Later, he came to again, and then began to realize what had taken place. In his case unconsciousness was a state of unawareness; consciousness, a state of awareness. Consciousness is the power of being aware, the process of being aware, the product of being aware. It may be directed outward and is then called consciousness. It may also be directed inward, and is then called self-consciousness, or simply consciousness. The difference between consciousness and self-consciousness will be briefly noted in the two following paragraphs. Thereupon a

word or two will be said about subconsciousness and unconsciousness, the powers, processes and products of the soul below the threshold of consciousness (43).

We live in a wonder-world. There is an outer world, consisting of the earth with its marvelously varied and beautiful scenery of land and water, birds and beasts, flowers of every hue, sunshine and shadow, day and night, with the sun, moon and stars in the blue vault above. The soul is aware of this outer world, and this awareness can be called consciousness. Consciousness is very complex; it is made up of many elements. Gates (44) compares it to an orchestral selection. You may be conscious of the music of the orchestra as a vague whole. Or, you may notice that it is a complex of units of sound from the violin, the cornet, the drum, etc., which form a harmonious whole. Or, you may go farther. You may analyze the sound of the cornet or the violin or the flute into its fundamental tones and overtones. In like manner consciousness can be thought of as a whole or be analyzed into its constituent parts, as, knowing, feeling, willing, conscience, faith, intuition, sensation, perception, memory, imagination, association, conception, judging, reasoning, love, hate, gladness, sadness, etc.

There is an inner as well as an outer wonder-world. It is the soul within, with all its powers, processes and products. By the method of introspection the soul looks within itself and is aware of these powers, processes and products. It is conscious of itself, its personality, its individuality, its identity both at the present time and in its reflections upon the past. This form of consciousness is often called self-consciousness, but it is at the same time the most fundamental form of consciousness (45). Consciousness is literally awareness of one's own mental states and operations (cf. Latin, con—with, and scio—know, a knowing with one's self). No one can look into the soul of another person and be conscious of what is going on therein. When I am conscious of something in the outer world I interpret it in the light of my own self-consciousness. Thus, consciousness has come to

mean, not only self-consciousness, but also awareness of objects and relations in the outer world.

Consciousness is, then, a foundation stone in our psychological temple. Still—and it should be noted here—consciousness is not the whole foundation. There is a good deal going on in the soul which is not characterized as consciousness. It is by some (46) called sub-consciousness, by others (47) unconsciousness. And, just as the body is constantly influencing the soul and the soul is constantly influencing the body, so consciousness and subconsciousness are mutually influencing each other.

2. Its Degrees

Consciousness is of various degrees of intensity, extent, quality and speed. As to intensity, the range may

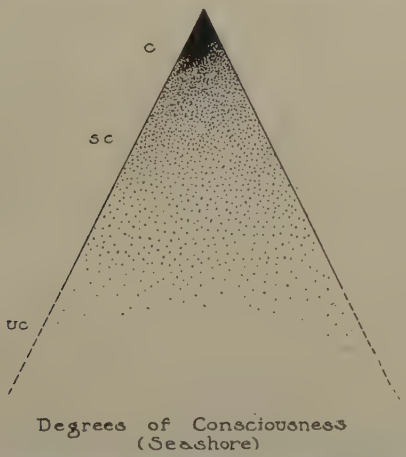
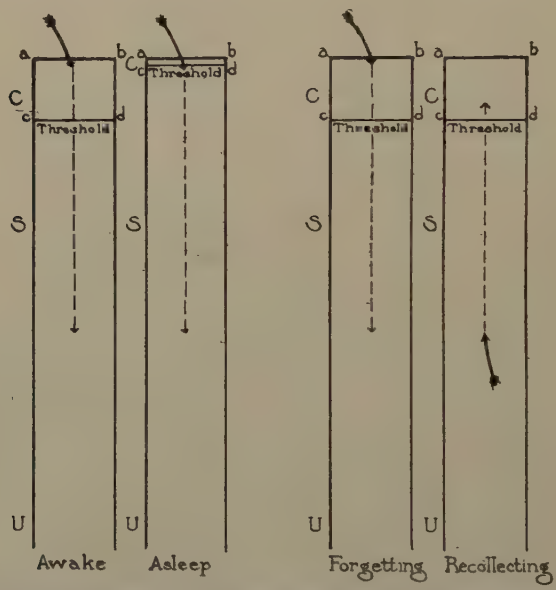


Fig. 21. CONSCIOUSNESS, SUBCONSCIOUSNESS, UNCONSCIOUSNESS
This triangle represents a cross-section of consciousness at any given moment. At the apex of this triangle, a very small section, shaded black, designates the conscious field; and below that, the subconscious, gradually fading out into the unconscious region of neural processes not associated with mentality.
(From Carl E. Seashore's "Introduction to Psychology," 1923. Copyright, by Macmillan Co. Reprinted by permission.)

be from the highest clearness to the most indistinct shadow. As to extent, it may range from several things at once to only one. As to quality, it may have thought

predominating, or feeling, or will, or conscience, or faith, or some phase or combination of these. As to speed, it may flow along slowly, smoothly, or rush along like a raging torrent.

Now, consciousness is the sum total of the powers, processes and products of the soul that it is aware of at



C-Consciousness. S-Subconsciousness. U-Unconsciousness).

Fig. 22. LEVELS OF CONSCIOUSNESS

any given moment. But the soul can not at any moment be aware of all its experiences and activities. All these not actually present in consciousness are variously described as being within the field of subconsciousness and unconsciousness. Seashore (48) illustrates these three levels of awareness by the diagram on page 69. Note that in consciousness the awareness is clearest, as in waking moments; in subconsciousness, it is less clear, as in sleep; and in unconsciousness, it is least clear, as in the

case of the man cited above as having been struck by the street car. Note also that there is no sharp line dividing the more distinct and the less distinct forms of consciousness.

Subconsciousness has many aspects and may be pictured in several ways. It may be thought of figuratively as a storehouse in which past experiences are put aside for future use. Stalker (49) calls it a warehouse where "the rich experiences of a lifetime are kept until wanted and called to mind." He calls it also a work-

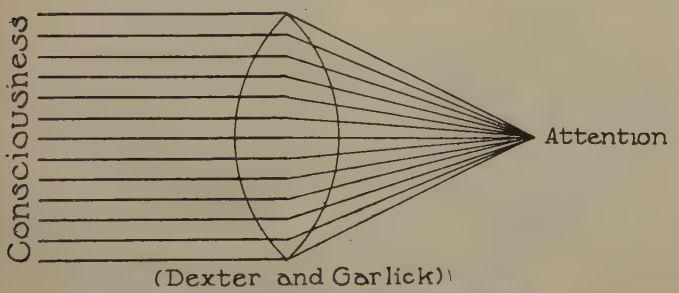


Fig. 23. FOCUS OF CONSCIOUSNESS
(From Dexter and Garlick's "Psychology in the School Room," 1908, p. 28, by permission of Longmans, Green and Co., publishers.)

shop where many things which are not clear to the understanding, can, if left alone for a while, be worked over so that they will be clear when they again are summoned into consciousness. Lewes (50) calls subconsciousness latent consciousness, the soul's picture gallery. Galton (51) calls subconsciousness the "antechamber of consciousness, where the ideas are thronging, waiting to enter the throne room in which royalty is on the lookout for a fitting mate." McDougall (52) compares it to a sort of underworld from which every idea, like Lazarus, may be called back to life. Dexter and Garlick (53) show how ideas fade away, that is, they go from consciousness into subconsciousness in the process of forgetting, and how they come back, that is, they come out of subconsciousness into consciousness again, in the process of recollecting. (See Fig. 22).

In the diagrams from Dexter and Garlick the line c—d represents the threshold of consciousness, that is, the boundary line between consciousness and subconsciousness. This threshold is not fixed, but rises and falls. The line a—b represents the highest degree of consciousness. In sleep it becomes nearly or quite identical with the threshold line. In the case of forgetting, images sink from consciousness into subconsciousness, deeper and deeper toward profoundest oblivescence. Some of these

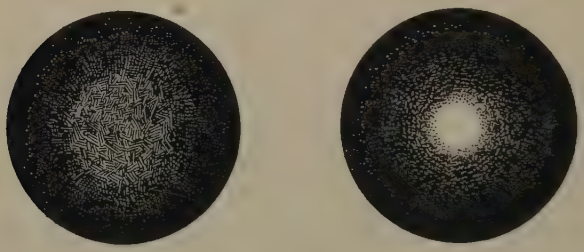


Fig. 24. DIFFUSED AND CONCENTRATED ATTENTION

(From P. M. Magnusson's "Psychology as Applied to Education," 1918, p. 76, by permission of Silver, Burdett and Co., publishers.)

experiences are very deep down, and overlaid and obstructed by more recent and more interesting happenings that well nigh and even completely prevent them from getting back into consciousness. Many things are, then, stored away in subconsciousness, some of them coming easily to the surface again, some of them coming back only with effort, some of them coming back only through some unusual associations of ideas, unusual types of suggestion, unusual physical or mental experiences, and some of them never returning to consciousness.

Here are two examples of long-forgotten facts eventually coming into the conscious field again. Rush mentions an Italian who in the beginning of an illness spoke English, in the middle of it French, and on the day of his death only Italian. The illness cleared the way for the deep-sunken past of the man. He had at one time of

his life spoken Italian, at another period French, and, at the time of his sickness, he lived in England and spoke English (54). An "Irish" laborer in Chicago was struck unconscious by a blow on the head. When he recovered, the first words that he spoke were the Lord's Prayer in Norwegian. In his boyhood he had lived in Norway. When he came here, he learned English and posed as an Irishman. Then came the jarring blow on his head, which permitted the childhood language hid away many years deep down in his subconsciousness, to come to the surface and cross the threshold.

3. Its Scope

The body is approached at all times, in sleep as well as in waking moments, by thousands of waves of light and sound, objects of touch, taste, smell, heat and cold. These are all servants of the soul, and, in the words of George Herbert, there are more of them "that wait on man than he will take notice of." They struggle with him, so to speak, to enter his consciousness. Nor is he able, try as hard as he will, to entertain more than a few at a time.

4. Its Duration

Consciousness has been pictured by James (55) as a river or stream. Like Tennyson's brook, it "goes on forever." McDougall (56) likens it to the "surface of a spring of water which bubbles up unceasingly from obscure, invisible sources. The surface assumes at every moment new forms; some change rapidly, others slowly, but none persists stably." In very profound sleep consciousness may be said to dwindle and almost disappear, as do some streams in the desert.

II. ATTENTION

1. Its Meaning

Consciousness is diffused attention; attention is concentrated consciousness. Attention comes from two Latin words meaning to stretch toward something. This mean-

ing is both figurative and real, for in the act of attention there is a strain and stretching placed on the body as well as the soul. Trench says that one who is attentive stretches out his neck so that he may not lose a word. Attention may be defined as the power of concentrating consciousness, the process of concentrating consciousness, and the product of concentrating conscious

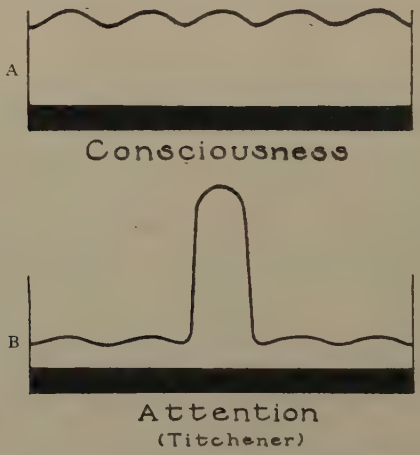


Fig. 25. WAVES OF CONSCIOUSNESS

(From E. B. Titchener's "Primer of Psychology," 1918, p. 75 Copyright, by Macmillan Co. Reprinted by permission.)

ness. Like consciousness, it may be directed inward or outward. The accompanying diagrams serve to illustrate the meaning of attention. In Figure 23 (57), conscious ness, like light, increases in vividness in proportion as it is concentrated on one spot. In Figure 24 (58), the light of thought is diffused over a wider territory in consciousness, and nothing distinct is before the mind; but in attention, or concentrated consciousness, the light is focused on a point, making the circle of consciousness smaller and bringing it as from twilight into the high light of noonday. In Figure 25 (59), "A" represents an inattentive, and "B" an attentive consciousness. The bottom

line is the bed of the stream, and the current is supposed to be flowing towards you, out of the paper. In "A" there are five ideas present, all proceeding at equal levels. In "B" the third idea is being attended to; its wave is being much heightened, while the other four waves are being depressed.

2. Its Degrees

There are several classes of attention, each of which has a variety of degrees of intensity. There is the involuntary kind, in which the soul is passive. The attention of young children is largely of this kind, and abundantly practised also by their elders. A loud noise, a bright light, a sharp pain, a strong contrast of any kind, occasion involuntary attention. A clock goes tick-tock all the night through, but does not awaken the sleeper. He has set the alarm so that the sudden noise can arouse his attention at the appointed time.

A second kind is the voluntary. In this the soul is active. We make ourselves attend by force of will. We try to distinguish a person's words from the noise of the machinery. We seek to pick out the mistakes of punctuation without reference to spelling or style or content. We attempt to learn this lesson in spite of our desire to go out and play.

A third kind of attention is an active attention that has passed over into passive. It is called secondary passive, and is peculiar to those who have been trained to voluntary attention so long that they have become completely absorbed in their work. A visitor called one day on the musician Grieg. Mrs. Grieg duly notified him to come down. He replied yes. As he did not come down, he was reminded several times that a man was there in the parlor waiting to see him. Twelve o'clock came and went. At three o'clock it was found necessary to go up and forcibly persuade him to take something to eat. He was so absorbed in a new composition that he scarcely noticed even this interruption. It it this kind of attention that has brought about most of the world's progress in the arts and sciences.

3. Its Scope

The range of attention is limited to a very small field —seldom more than six objects at a time, usually not more than one. The intensity of the attention is lessened as the scope is increased. A group of five printed words was exposed for five seconds before a class. Then each member of the class was asked to write into his note-book all the words that he had noticed. Then a list of ten printed words was exposed for five seconds, after which the words remembered were recorded. Finally, a list of twenty-five words was exposed for the same length of time, and a record was made of the impressions. A class of twelve persons found that they could remember 98.5 per cent of the five words exposed, 46.6 per cent of the ten words, and 18.5 per cent of the twenty-five. Numerous objects diminish the power of attention.

4. Its Duration

The attention fluctuates. No matter how interesting the picture, or story, or sermon, or conversation, it is impossible for anyone to keep the attention on it all the time. If consciousness is likened to a river continually flowing on, attention may be likened to a man standing

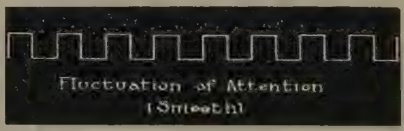


Fig. 26. FLUCTUATION OF ATTENTION—SMOOTH

on the riverbank watching the objects in the water—logs, chips and what-not. They all are moving on down stream. The longest stretch of attention recorded in the psychological laboratory is said to be 24 seconds, and the average is about five or six seconds. The waves of attention rise and fall rhythmically in a sort of slow march time. Sometimes the waves are smooth, sometimes not. The following graph of a smooth wave is

taken from an actual experiment with liminal lights. The illustration of a ragged wave is taken from Seashore (60). Anyone can try the experiment of looking at a certain spot for a certain length of time. He will find that his attention periodically wanders off to something

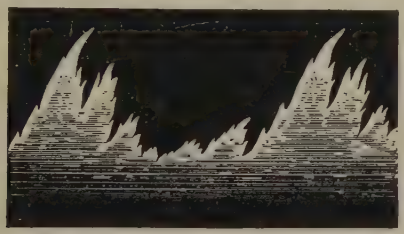


Fig. 27. FLUCTUATION OF ATTENTION—RAGGED

(From Carl E. Seashore's "Elementary Experiments in Psychology," 1908, p. 160, by permission of Prof. Seashore)

else. Try this: Take a lead pencil and try to concentrate your attention upon the point of it for one minute. Have someone notify you when the minute is up. Whenever your attention wanders off from the point, indicate it to your partner by a movement of the finger, and he will record the number of fluctuations one by one. At the end of the minute count the marks.

A. QUESTIONS AND ASSIGNMENTS

I. Discuss the topics under consciousness: Meaning, degree, scope, duration. Explain and illustrate each of the following: Self-consciousness, subconsciousness and unconsciousness.

II. Discuss the same points under attention.

B. REFERENCES

43. In addition to the terms consciousness and self-consciousness, subconsciousness and unconsciousness, the reader should note that there is much current talk about multiple consciousness and superconsciousness. Multiple consciousness is briefly explained in Chapter XV. Superconsciousness is applied especially to the strange experiences known as hypnotism, somnambulism, telepathy, clairvoyance, crystal visions, automatic writings, etc. Some of these experiences are no doubt too highly and even fraudulently pictured, still many of them are surely real, and beyond

the ordinary. Enthusiastic expounders of superconsciousness claim that man has two souls—the objective soul (dependent upon the body), and the subjective soul (independent of the body). The objective soul corresponds somewhat to soul, and the subjective soul corresponds to spirit, or inmost soul, of the trichotomists. The subjective soul, says Hudson, an extravagant expounder of this occult and mystic psychology, "sees without the use of the natural organs of sight. . . . It can be made, apparently, to leave the body, and travel to distant lands and bring back intelligence, oftentimes of the most exact and truthful character. It has also the power to read the thoughts of others, even to the minutest details; to read the contents of sealed envelopes and of closed books."

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CHAPTER SIX

KNOWING: PRESENTATION— INTUITION, SENSATION, PERCEPTION

I. POWERS, PROCESSES, PRODUCTS

1. Powers

The history of psychology is very old. We can trace it back over 2500 years, and we may be sure that men thought about their souls and talked about them long before they began to write observations and organize their knowledge into systematic classifications. Socrates (469-399 B. C.) taught "Know thyself," and set a good example in following this motto, which was centuries old already in his day (61).

One of the things which the ancients in their observations and speculations, as a rule proclaimed was, that mind was different from matter. The following formula may well describe many of the ancient, as well as modern, attempts to distinguish between matter and mind: "What is mind?" "No matter." "What is matter?" "Never mind" (62).

Another thing that the ancients noted was, that man possesses powers, or abilities, of many kinds, possibly best known as faculties. They did not agree exactly as to how many faculties the soul of man has, or what to call them, but they did agree fairly well on the fact that the soul (psyche) was a unifying force, able to exert itself in many directions. Plato, for example, held that man has two main faculties—rational and irrational; Aristotle discovered three faculties, corresponding to vegetative, animal and rational souls, all in man; the Stoics listed eight faculties—sight, hearing, taste, smell, touch, reproduction, speech and reason. Augustine (354-430) stoutly defended the unity of the soul, but maintained that

it has the faculties of self-consciousness, attention and will. Avicenna (980-1037) discovered five inner senses to counter-balance the five outer senses, all of them being innate faculties, and, in addition, sharply classified and carefully defined a number of other powers of the soul. The idea of faculties was in extensive use during the Middle Ages and was seldom ever questioned.

The writer who has paid most attention to mental faculties is Christian Wolff (1679-1754). He held the age-long theory that the soul is a unity exhibiting itself in a variety of faculties, all interdependent though distinct. His followers are said to have cut the soul up into water-tight compartments, each doing its peculiar work independently of the others. This has led scholars to attack the faculty theory, to reject the very notion that the soul has faculties, and even to deny the existence of the soul. Herbart (1776-1841) led the attack against faculty psychology (63) and succeeded in directing the students of psychology away from the powers of the soul to the contents of consciousness, the states and processes of the soul. Klemm, in his "History of Psychology" (p. 68), thinks that the reign of faculty psychology has come to an end. But such is not the case. There is hardly a book on psychology that does not at some time, in some manner, say or imply that the soul has powers (64). Powers and faculties are exact synonyms.

According to Wolff the soul has two major faculties —cognition (knowing) and will. In 1776 Tetens (65) succeeded in adding feeling as a third major power of the soul. Thus originated the tripartite division of the faculties, which was destined to dominate psychology for over 100 years. This classification is followed in the present volume, and two other faculties are added, making five, namely, knowing, feeling, willing, conscience and faith.

2. Processes

Psychology may deal with the soul as a unit having many faculties, or powers. It may also deal with the

soul in action. It will then analyze the stream of consciousness (66), the focusing and fluctuation of attention, the progress in knowing, feeling, willing and the like. The psychologist studies the processes of the soul just as the physiologist studies the processes of the body —its growth, circulation, respiration, assimilation, etc. In psychology, then, we observe events going on, processes never ceasing, though ever changing. This kind of psychology calls for a careful use of the introspective method.

3. Products

Psychology may deal not only with the soul as having powers or processes, but also as having products. We can speak of the products of the soul just as truly as we can speak of the products of the farm or factory. Sight, hearing, memory, imagination, concepts, judgments, patriotism, trust, choice, perseverance, are examples of the thousand and one soul products. Some psychologists maintain that this is the only really scientific method of studying the subject. They call themselves behaviorists (67). They hold that for every stimulus there is a response, and for every action or behavior of any kind, there has been a stimulus. This kind of psychology calls for the careful use of observation methods.

This book holds that the soul has powers, processes and products, and that each of the powers of the soul can also be defined in terms of process or product. Thus, memory is either a power, a process, or a product.

II. THE MAJOR POWERS

The soul has five major powers—knowing, feeling, willing, conscience and faith.

Knowing is the power of the soul to be conscious of facts and their relations. This faculty is often called intellect, cognition, or understanding.

Feeling is the power of the soul to be conscious of the agreeable or the disagreeable aspects of knowledge. This faculty is sometimes called sensibility, affection, or emotion.

Willing is the power of the soul to desire, deliberate, choose, purpose and act. This faculty is also known as volition, conation, or the will.

Conscience is the power of the soul to distinguish between right and wrong in questions of morals and duty. It is also called the moral faculty.

Faith is the power of the soul to be assured of things hoped for, to be convinced of things not seen. It is in particular the religious faculty of the soul, by which, in his natural state, man worships some Higher Being, and, in his renewed state, he worships the One True God and believes His Word.

III. KNOWING

Knowing is the most basic of the faculties, the easiest to study, and the one receiving most attention in introductory courses in psychology. In 12 representative American psychologies it was found that 57 per cent of the space was devoted to knowing, 9 per cent to feeling, 6 per cent to willing, about 2 pages out of 5,241 to conscience and faith, and 28 per cent to miscellaneous applications. In 12 representative European psychologies it was found that 60 per cent of the space was devoted to knowing, 12 per cent to feeling, 6 per cent to willing, 1 per cent to conscience and faith, and 23 per cent to other matters. The present book devotes only three of the sixteen chapters to knowing.

The activities of the knowing faculty run in three main channels, namely, presentation, representation and thinking.

Presentation is the power of the soul to know self-evident truths and the material objects in the outside world presented to the senses, together with the necessary relations between such objects, such as space and time, cause and effect. I hear the birds sing, is an example of presentation.

Representation is the power of the soul to bring back and reknow past experiences. I recall the singing of the birds that I heard yesterday, is an example of representation.

Thinking is the power of the soul to take the particular experiences received in presentation and revived in representation and form more general notions and applications of them. I may think of singing without any reference to singer, song or occasion.

IV. PRESENTATION

In this chapter only presentation will be considered. Three aspects of presentation will be briefly described—

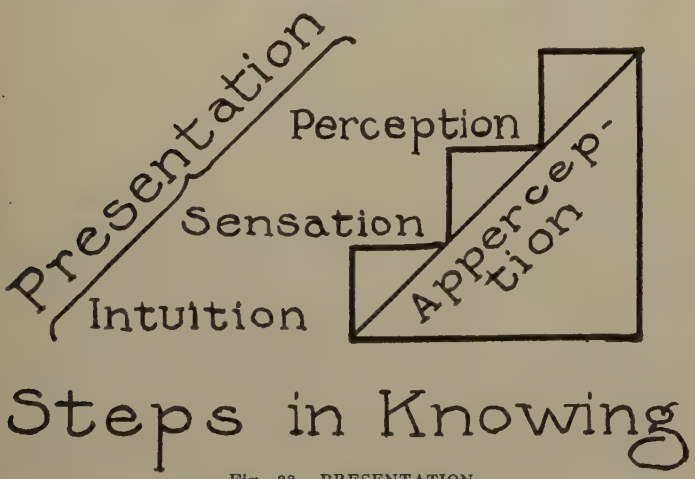


Fig. 28. PRESENTATION

intuition, sensation and perception. In the accompanying diagram they are represented as three steps in knowing.

1. Intuition

Intuition is the power of the soul to know immediately the necessary relations between objects. In intuition we understand at once. Intuitive knowledge is in germ, at least, innate. All other knowledge must be brought into the soul from without through some medium, hence all other knowledge is mediate.

It is extremely difficult at times to know what knowl-

edge is intuitive and what not. Some thinkers, like John Locke, have therefore concluded that there is no innate knowledge and no intuition at all. Angell (68) expresses the pious hope that nobody will disturb the conception of innate ideas in its grave, where it has quietly rested for several centuries. And yet, opinion seems to persist that the soul possesses intuition, which is at the same time a power, a process and a product. The intuitions are fundamental thoughts, without which a man would not be sane. Among these are a number of self-evident and universal facts and principles, the ideas of self and the other one, the existence of mind and matter, the relations of time and space, cause and effect, the axioms of mathematics, the sense of moral right and wrong, the universal desire to worship a God. Intuition enters also into other mental processes, hence we speak of intuitive judgments, intuitive reasonings, intuitive feelings, etc.

Intuitive knowledge is the most fundamental, self-evident, universal and necessary knowledge that man has. How invaluable is the innate knowledge respecting God and immortality. The Law of God written in the heart helps a man not only to know at once the clear outlines of right and wrong in moral conduct, but it also makes him sad and fearful when he does wrong and glad and fearless when he does right. Origen says that "men would not be guilty if they did not carry in their mind common notions of morality, innate and written in divine letters." Tremendously important are also the general intuitive truths, as, for example, the existence of matter, mind, space, infinity, time, eternity, beauty, truth, cause, effect and number. From these acorns mighty oaks of knowledge grow.

2. Sensation

Sensation is the great door through which the knowledge of the outer world comes into the soul. It is the power of the soul to know mediately, through the sense organs, objects and other facts of knowledge.

The body and the soul are most closely connected. The body is equipped with a vast network of nerves

which connects up every part of the body with the brain as the center of the nervous system. Every part of the body is the terminus of a nerve fiber leading to headquarters. Every terminus of a nerve fiber is a sense end-organ. Every sense end-organ, when stimulated, will proceed to carry the stimulation on to the central system, where the message will be taken note of, interpreted and carried out. Thus, the eye is the end of the optic nerve. When the rays of light touch the eye, the message will be flashed to the brain and the sensation of sight will result. The auditory nerve of the ear carries the stimulations from the waves of sound on to the brain, resulting in a sensation of hearing. Each kind of sensation has its own special nerves and nerve-end-organs, as, sight, hearing, smell, taste, pain, pressure, heat, cold, and various kinaesthetic and organic sensations.

It is hard to experience an entirely pure sensation. Most sensations are very complex. For instance, you see a book. It has several qualities, among them color and form, and these you see at the same time. Besides, since you have had experience with books before, many of your previous experiences bubble up out of the mysterious subconsciousness and meet the entering sensations. You have, then, instead of one new sensation a series of new sensations plus a series of old sensations, all uniting in a flash to form a complex sensation. While holding the book, you hear some one call out, but, being interested in the book, you pay little attention to the cry, therefore the cry produces a sensation considerably simpler.

Sensation, as a power, is the faculty of the soul by which, through the stimulation of the sense organs, one is made aware of the simplest forms of knowledge. As a process, it is the simplest reaction of the soul against the nerve current caused by a physical stimulus. As a product, it is the simplest and most unanalyzable element, resulting from nerve stimulation. General text books on psychology pay more attention to sensation than to any other department of the subject. In the 24 books referred to above 35 per cent of the space was given over to

sensation. Experimental psychology is concerned mainly with sensation.

Sensations are classified as general and special. The general sensations have their organs distributed over the whole body, and are often difficult to localize. They are also more complex than the special sensations. Those connected with the nutritive, circulatory, respiratory and sex organs are called organic. Those connected with the moving of muscles, pulling of tendons, gliding of joints, equilibrium and dizziness, are called kinaesthetic sensations. The special sensations are sight, hearing, taste and smell, each of which is connected with a special end nerve, easily located. In addition to these four there is a fifth special sense connected with the skin, popularly called "feeling," but more accurately known as touch. Upon analysis, this is found to be not a simple sensation. The skin is found to contain several kinds of end nerves, transmitting several kinds of sensations—pain, pressure, warmth and cold, and various combinations of these, as, heat, intense cold, itching, tickling.

The five senses have been called the royal roads to the soul. Bunyan has said that the town of Man-soul has five gates—Eye Gate, Ear Gate, Taste Gate, Smell Gate and Touch Gate. It is through these five ports of entry that the cargoes of knowledge from the external world are landed on psychic soil. We can perhaps best understand how important these senses are by imagining our condition without them. Laura Bridgman and Helen Keller, born blind and deaf, were thereby condemned to a life in darkness and stillness as profound as in the bowels of the earth. Every sense organ, general and special, serves us right well. Roughly speaking, we might say that the general sensations serve the wants of the body primarily and the special sensations serve the wants of the soul.

In Kingsley's "Eyes and No Eyes," there was a boy who on an afternoon had brought home a handkerchief full of curiosities, and another boy who on the same walk had not seen anything or found anything worth while. The teacher in commenting on this said: "So it

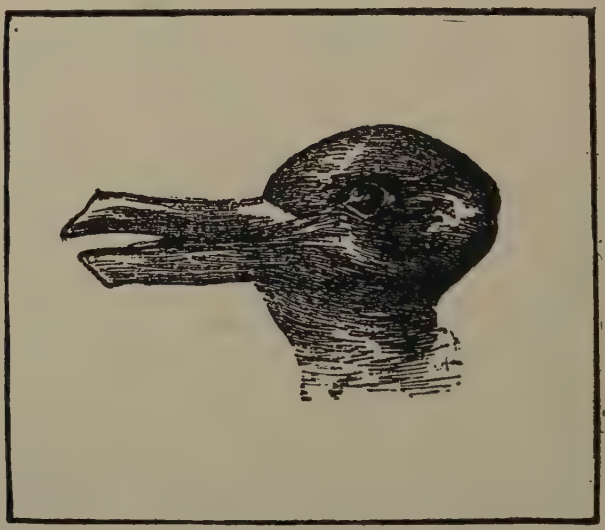
is. One man walks through the world with his eyes open, and another with them shut, and upon this depends all the superiority of knowledge which one acquires over the other. I have known sailors who had been in all quarters of the world, and could tell you nothing but the signs of the tippling houses, and the price and quality of the liquor. On the other hand, Franklin could not cross the Channel without making observations useful to mankind. While many a thoughtless person is whirled through Europe without gaining a single idea worth crossing the street for, the observing eye and inquiring mind find matter of importance and delight in every ramble. Do you then, William, continue to make use of your eyes, and you, Robert, learn that eyes were given you to use" (69).

3. Perception

Perception (from the Latin per—through, and capere —take, implying a taking through an organ of sense) is used to designate a power, a process or a product. It is the power that interprets the raw materials given by sensations. In sensation one is aware of the simple qualities of an object; in perception these qualities are united into one object, giving it a definite meaning. Over on the table yonder is a round object, of reddish color, of the size of a hand ball. Perception puts these sense impressions together and calls it an apple. "When an Arab was tried in one of our criminal courts, his words caused sensations in the judge's ears but conveyed no meaning. An interpreter was called to translate his words. Perception is the interpreter employed by sensation" (70). It is possible to see and not perceive (Matt. 13:14).

In sensation, what we experience is determined by the stimulus. In perception, we are conscious of more than the group of sensations aroused by the stimuli. Past experiences are also aroused, and they unite with the new sensations in the act of perception. The arousal of old experiences by incoming sensations is known as apperception. Apperception is the perception of things in relation to ideas that we already possess. A farmer, visit-

ing one of the mammoth buildings of the Chicago Columbian Exposition, gazed for a long time speechless at the vast room and then said: "My, this would hold a lot of hay." A ball player would probably have said: "What a



(Originally in *Fliegende Blätter.*)

Fig. 29. ILLUSTRATING APPERCEPTION

If you talk to a group of people about duck-hunting and then show them the picture in Fig. 29, most of the group will see a duck. If you talk first about rabbits, most of the same group will see a rabbit. The idea in the mind determines which of several possible interpretations of the retinal image will be seen.

(From Griffitt's "Fundamentals of Vocational Psychology," 1923, p. 87. Copyrighted, by Macmillan Co. Reprinted by permission.)

splendid ball field this would make." Due to the fact that our past experience enters into our percepts, all perception is personal, purposive and partial. A dollar does not mean the same to the infant and the adult, to the miser and the liberal giver.

Percepts may be classified in several ways. Based on the sense organs used, they are visual, auditory, gustatory, olfactory, tactual, mixed, etc. With the eyes we can make

out color, shape and size; with the ears, sounds, rhythm and rate; through smell, the odors; through taste, the flavors; through touch, texture, solidity, figure, warmth, cold, pain; through the combination of senses, distance, direction, hardness, etc. Very few of the percepts depend on a single organ alone. In getting for the first time the percept apple, a child most likely employs at least four or five senses—he looks at it, feels of it, smells of it, tastes of it, and welds the four sensations into a percept. Every time thereafter that the child tries to form the percept apple, the process of perception is reinforced by the process of apperception,

Sensations are the raw material of knowledge. Percepts are the first objects made from this raw material. If sensations be likened to iron ore, then percepts may be likened to the iron bars and sheets made from it. These will, as occasion demands, be made over into machines, bridges, buildings, needles, knives, watches. And, in like manner, sensations and percepts enter into the fabric of thought. Fortunate the one who, especially in childhood and youth, uses his eyes and ears and hands to get many impressions and forms many percepts.

A. QUESTIONS AND ASSIGNMENTS

I. 1. What is meant by faculty? Name some of its synonyms. Recount briefly from the story of psychology some of the attempts to establish the fact that the soul has faculties and the efforts made to controvert this stand. 2. What is meant by processes? 3. Define products or behavior.

II. Name and define each of the five major powers of the soul.

III. Define knowing. What position does this faculty have in the average text book on psychology? Define presentation, representation, thinking.

IV. Name the three steps of presentation. 1. Give the meaning of intuition. Illustrate. Give its classes. Its value. 2. Give the meaning of sensation. Illustrate. Give its classes. Its value. 3. Give the meaning of perception. Illustrate. Give its classes. Its value. What is apperception? Illustrate.

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CHAPTER SEVEN

KNOWING: REPRESENTATION— ASSOCIATION, MEMORY, IMAGINATION

Presentation is the power of the soul to take to itself knowledge from the outside world. Representation is the power to re-present, or reknow, such knowledge. In presentation, knowledge comes streaming into the soul, first into consciousness, then into subconsciousness. In rep-

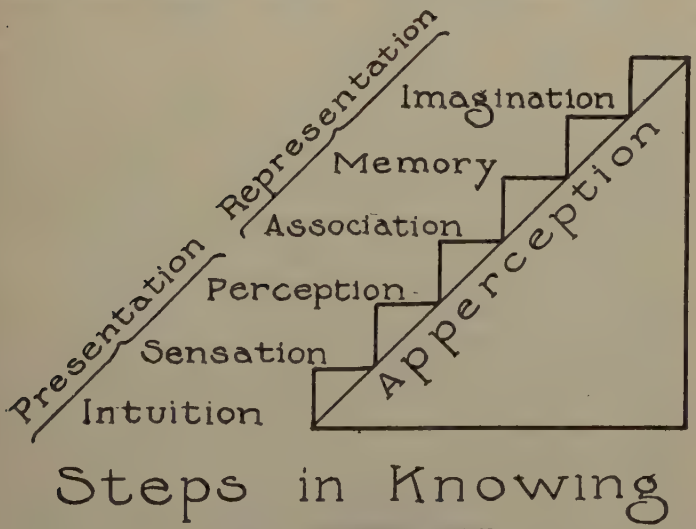

Fig. 80. REPRESENTATION

resentation, the knowledge that flowed into subconsciousness is called back into consciousness.

There are three types, or steps, of representation—association, memory and imagination. Association is the power of the soul to group mental materials and to link them together. Memory is the power to record, retain,

recall and recognize past experiences. Imagination is the power to recall past experiences and combine them into new forms.

I. ASSOCIATION

1. Analysis

Association (from the Latin ad—to, and sociare—unite, cf. socius—companion) is a power, a process and a product. James (71) calls association the formation of friendships among ideas. Herbart calls the groups of related ideas apperception masses, and, in the words of the proverb, "a friend in need is a friend indeed." These apperception masses are like money in the bank on which you can draw whenever you are out of funds.

Like sensation, association has a physical basis. In sensation an external stimulus aroused some nerve-end, and a message was promptly sent along the nerve to the brain center. The brain center has a sensory area, a motor area and an associational area. The incoming message first reaches the sensory area and becomes known as a sensation. From the sensory area an impulse goes by nerve fiber perhaps at once to the motor area, whence it is sent by outgoing nerves to the muscles, which respond by motor act. Or, maybe the impulse is not sent at once to the motor area. Maybe it is first directed by nerve fiber into the association area before it is permitted to reach the motor area. Suppose a man attacks you and strikes you with his fist. The message from the blow speeds to the brain and announces a sensation of pain. There should naturally be an immediate return blow, but, if the impulse to strike back has been shunted over to the associational lines, the chances are that there will be no return blow. Second thoughts are more complex and have more brain connections; first thoughts are more simple and run along a single fiber. The whole nervous system is one vast network of associated wires, and the whole body of a man's knowledge is complicated and interwoven. Even when we find no association between our ideas, we may be sure that asso-

ciations exist. Education consists partly in making many associations and partly in discovering the associations already existing.

There is also a psychical basis for associations. And just as the physical basis of cerebral association may be found, within limitations, in the cells and connective fibers of the brain, so the psychical basis may be found in the psychical nature of association. This nature can be stated in the form of laws of association. Among these laws are: Similarity and contrast, contiguity in time and place, and cause and effect. A tall man suggests either a tall man or the opposite. Christ and the Twelve are associated both as to time and place. Sin and death are as cause and effect.

2. Classification

Classified as to time, associations are either simultaneous or successive. Simultaneous association is the orderly grouping of ideas or objects at the same time; successive association is the sequence of our ideas as they pass through the mind. Franklin associated lightning and electricity—this is an instance of simultaneous association. When the teacher mentions Franklin, a train of associated ideas follows, as: printer, statesman, philosopher, discoverer, electricity, telegraph, telephone, radio, etc.—this is an example of successive association.

Classified as to laws by which they are formed, associations are either of similarity or contrast, contiguity of time or place, cause or effect.

Classified as to consciousness, associations are either conscious or subconscious. The results are often about the same. Many problems are worked out in sleep. Forgotten knowledge, like the foundations of a building, is unseen, but is supporting that which is visible.

3. Value

In the advance of knowledge, wholes are analyzed into parts and parts are brought together into wholes through association or synthesis. Analysis and synthesis are two

alternating activities, a stroke of one preparing for a stroke of the other, much as, in walking, a man's two legs are alternately brought into use, both being indispensable for any orderly advance. Association is a valuable aid in perception, memory, imagination, thinking, and almost every other mental act. It is a source of pleasure, for it marshals into a compact army a lot of disconnected, and otherwise useless facts. It is a source of profit, for it gives a man command over inner relations, as, cause and effect, and gives him dominion over the world of thought and of nature. It is an invaluable help in outlining and classifying, and the man who can outline and classify is equipped with seven-league boots. Without associations our lives would be chaotic, a mere succession of unrelated experiences.

The importance of association was appreciated as far back as Aristotle, but is was not until 1651 that the subject was explained at any length. This exposition was made by Thomas Hobbes in his "Leviathan." From his day the principle of association became so dominant in English psychology that for two centuries it was called Association Psychology. David Hume compared the law of association with that of gravitation. Ribot (72) says that "association is at the bottom of all our acts; it permits of no exception. Neither dream, revery, mystic ecstasy, nor the most abstract reasoning can exist without it. Its suppression would be equivalent to that of thought itself. Nevertheless, no ancient author understood it. . . . . The discovery came late and seems so simple that it may justly astonish us."

II. MEMORY

1. Analysis

Memory (Latin, memoria) has already been defined as the power to record, retain, recall and recognize past experiences. It may also be defined as a process or a product. The process of recording is sometimes called memorizing or learning by heart. The process of retaining is called remembering. The process of recalling is

called recollecting. The product of memory is often called idea.

Modern psychology stresses the physical basis of memory. Memory, modernists say, is not a power of the soul, but of the brain (73); memory is nothing else than impressions made in the nerve and brain paths—as messages are carried from sense organs to brain centers. The pathways are broadened and deepened with every repeti-

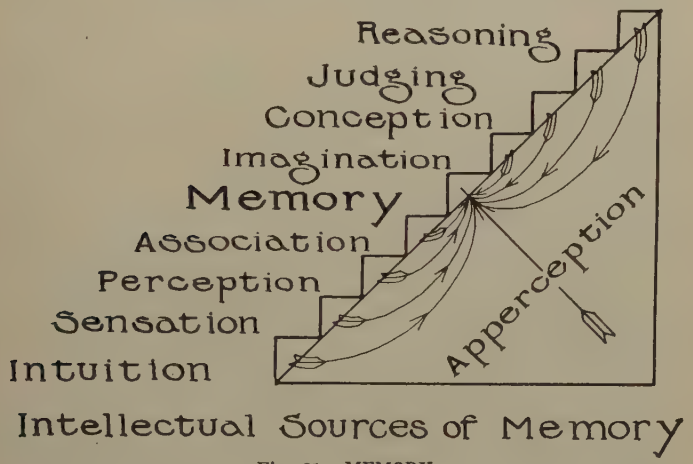

Fig. 31. MEMORY

tion of the experience in about the same way as the highways are affected by much traffic. The cortex, or gray outer covering of the brain, is a vast city of cells, millions of them, billions of them, like so many empty houses waiting for occupants. Each incoming sensation is assigned to one of these vacant houses. There, so to speak, the sensation will stay, in subconscious obscurity, until called upon. After a sensation has been revived in memory, after it has again been in the conscious field, it returns to its subconscious home in the cell-palace of the brain. There is no doubt much truth in the doctrine that memory has a physical basis, yet this theory as just outlined is too materialistic to be true. It can be used by way of illustration to show

the need of making deep impressions in order to have a good memory.

Memory is the power to *record*. As general aids (74) to making a good record may be mentioned: Good health, proper nourishment and rest, apperception, interest, will, duty, faith. Sound and vigorous health is favorable, disease is unfavorable, to good memory work. Proper food, moderation, avoiding worry and fatigue, with plenty of sleep and rest, promote learning by heart. Apperception is the principle of learning new things on the basis of the old, and is a well-established law in learning. It is easy to remember what you want to remember and are interested in, as in the case of the young woman who learned her catechism in six weeks because she wanted to get married. She was not permitted to marry until she was confirmed. She said it would take her ten years to learn her books for confirmation. But when she realized that she had to learn them, she went at the task with such a zeal that she reduced the ten years to six weeks. A sense of duty is a fine incentive to good memory work, as is also practice in trusting one's memory. Memory grows in trustworthiness by being trusted. Besides these general aids in getting good impressions, there are special aids, as, for instance, intensity, primacy, recency and frequency. Great events, great men, great thoughts, are examples of intensity. Thus confirmation day and the day of marriage are great days among days and will stand out as such. Washington and Lincoln rank head and shoulders above the other presidents. On the printed page illustrations are more impressive than the printed lines, and capitals, italics and black-face type stand out. Vividness of impression may arise from the primacy of it, as the first visit to the city, the first day at school, the first dollar earned. Vividness may arise from the recency of an experience, for what has just happened has not yet had time to fade into oblivion. Finally, vividness may be due to frequency. Repetition can be a most worthy or a most wasteful procedure in memorizing. Many mere rote repetitions are wasteful. Getting a good record is the first great secret in learning by heart.

Memory is the power to *retain*. The general and special aids in recording are also aids in retaining what has been recorded. An additional aid in retention is that of logical associations. These are known as laws—the law of similarity and contrast, the law of contiguity in time and place, the law of cause and effect—, and have been explained under Section I of this Chapter. In the history of psychology and pedagogy there has been no faculty of the soul so emphasized as the memory, and no phase of memory has been more emphasized than retention. Many magazines carry full-page advertisements of memory systems which show one how to improve his memory, even to the point of never forgetting. Many of the demonstrators of these memory, or mnemonic, systems can truly perform astonishing feats of memory. For example, Petrus de Ravenna recited all the sermons that had been given in his hearing during Lent, word for word. He once played a game of chess, and dictated at the same time two letters, while another person played at dice, and a fourth wrote down all the throws. When the game was finished, Ravenna recited from memory all the moves of the game of chess in their right order, all the words of the two letters backward, and each throw of the dice in order. E. Pick, a lecturer on mnemonics, wrote on a blackboard long columns of figures given by the audience, then turned his back to the blackboard and repeated all the figures from the first to the last, and then backwards, and afterwards indiscriminatingly. After that he extended the test to words, phrases, and so on. He says his method is very simple and natural. He first concentrated his attention so as to get a good impression, a good record. The next step was to make natural connections between the figures or words that were listed. Logical associations—that was his whole secret. Association, both involuntary and voluntary, is the surest method of retaining ideas (75).

Memory is the power to *recall*. The recall may be passive or active. Frequent repetitions, made according to purpose and plan, are an excellent aid to successful recall. The recall should be made over the same track

over which it had originally come. The repetitions should be spaced with periods of rest between. It is better for a child to study his Sunday School lessons a few minutes each day than to cram for an hour on Saturday evening. Learning by wholes is better than learning by parts, because it gives a connected view of the lesson. Reciting the lesson aloud to yourself or to a roommate is a splendid help for the classroom recall. Giving special attention and extra drill to points of special difficulty make the recall easier and surer.

Memory is the power to *recognize*. After recall follows of necessity recognition, that is, the identification of the ideas with the original percepts. Thus, the tune "America" we recognize to be the very same one we have heard time and again before, perhaps with definite localization, at such or such a place and occasion.

An idea is really an after-percept, or a restored percept, a photographic copy of a percept. In percepts the object which arouses sensations is actually before us;

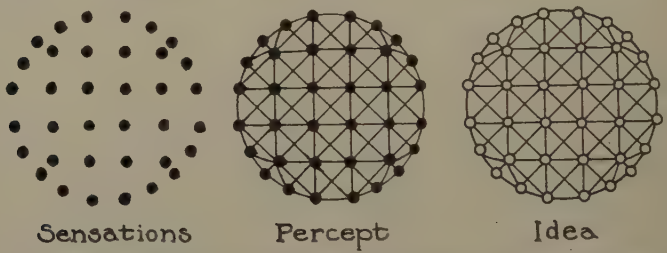

Fig. 32. STRUCTURAL RELATION OF IDEA TO PERCEPT AND SENSATIONS

The percept has united the sensations into a definite whole: the idea is a faint reproduction of the percept.
(Modification and extension of La Rue's diagram.)

in ideas it is no longer before us. When we see a man walking past the window we have a percept of him; when we recall that he walked past the window an hour or so ago, we have an idea of him. The idea is smaller, fainter, less accurate, less stable, than the percept. If not deeply impressed it may soon fade away. The fading away, or forgetting, is according to law. Note in the accompanying

curve of forgetting, from Ebbinghaus, that forgetting is most rapid immediately after an event has been experienced.

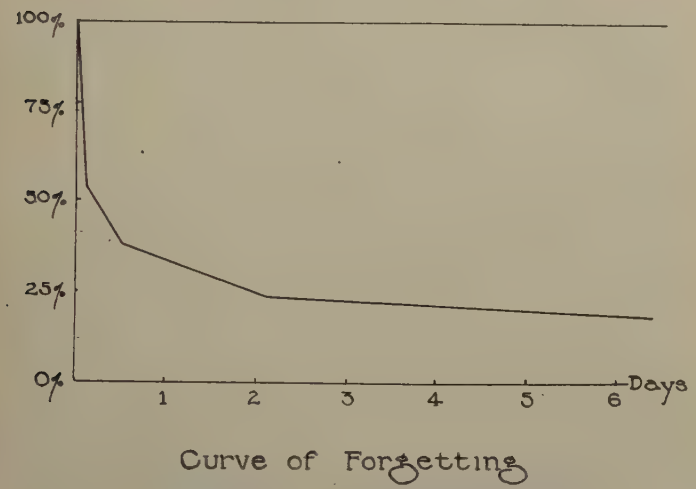

Fig. 33. HOW FAST AND HOW MUCH ONE FORGETS

2. Classification

Based on the sense organs principally used in securing information, memory can be called visual, auditory, gustatory, olfactory, tactual, or mixed. Most people are of the visual type. The mixed type is the ideal.

Based on the principle of meaning, memory is word memory and thought memory, or, rote memory and logical memory.

Based on the kind of material, memory is concrete or abstract.

Based on the attitude, memory is either active or passive.

3. Value

If we had perception only, we would have neither past nor future in our consciousness. We would not

know what happened but a moment ago. We could know only a few present facts about ourselves, and such knowledge would be pale. But due to memory we are able to record, retain, recall and recognize a large part of the knowledge that streams in through the five great gateways. We are perfectly sure that we are we, and can see ourselves as we were in the past. Memory is one of the proofs of the existence of the soul and the continuity of personality.

Without memory there would be no apperception, no imagination, no thinking. With memory our soul can project itself backward and forward through time and space. The passing moments can be enriched by our happiest experiences of the past, by choicest selections from literature learned by heart.

Memory has therefore been called the tax gatherer of the past, the treasurer of the soul. Memory is strong in later childhood, but may increase in strength until far on in maturity. The older we get, the more we are likely to live in memories of the past. How vast the sum of knowledge stored up in the memory of the average person, gathered from daily contact with men and nature and books! "Great," says Augustine in his "Confessions," "is this power of memory, exceeding great, O my God—an inner chamber large and boundless. Who has plumbed the depths thereof? Men go forth to wonder at the heights of mountains, the huge waves of the sea, the broad flow of rivers, the extent of the ocean and courses of the stars, and omit to wonder at themselves" (76).

III. IMAGINATION

1. Analysis

By imagination is meant the power or process or product of selecting and combining into new forms the ideas already furnished by memory. Sully defines it as "the power to work up our experiences into new forms." The product of the imagination is called an image. The imagination is founded on the intuition, sensation, perception, association and memory, but draws heavily also on

thinking. We can not imagine anything the elements of which are unknown to our soul. Imagination is a rearrangement of the ideas already possessed. The process is a double one—first, that of dissociation, in which the attributes belonging to an object are separated from one another; second, that of association, in which there is a new arrangement of the attributes. Aesop has followed these processes in his "Fables." In the "Fable of the Fox and Grapes," human language and reasoning are dissociated from man and associated with the fox.

2. Classification

On the basis of the sense organs employed, the imagination may be classified as visual, auditory, gustatory, olfactory, tactual, or mixed. Most people are visual minded. Starch (77) tested 26 students and found that 51% of their images were visual and 23% were auditory. Hollingworth (78) tells of one observer who recorded 2,500 of his own images during two years of study of this subject, and found that 57% of his images were visual and 20% were auditory.

On the basis of method, imagination is either mechanical or constructive. A mermaid, consisting of half woman joined to half fish, is a product of the mechanical method. The carpenter in planning a new house, the scientist in stating a new theory, the artist in painting a new picture, the missionary in going out to new fields,—all these use the constructive imagination.

On the basis of its products, the imagination is philosophical, scientific, poetical, musical, etc.

On the basis of control, the imagination is known as imagination proper and phantasy. Phantasy may be exercised in sleep or wakefulness, and is due to the suspension of some of the powers of the soul and the unusual activity of others. The product of phantasy is called phantasm. It has many forms, as, day-dreaming, fancy, illusion, hallucination, delusion, dream, somnambulism and hypnotism. Day dreaming, also called revery, consists of a brooding on topics, fair or foul, usually dealing with what might have been or never will be. Fancies are light

and whimsical images, air castles, so to speak. Illusions are false perceptions of real objects, as when one has the impression that a crooked stick in the grass is a snake. Hallucination is a false impression of unreal objects, as in the case of the drunkard, who imagines that he sees snakes. Dreaming is a rioting of the sensations, percepts, ideas, images, thoughts, feelings and volitions, that shoot up from subconsciousness during sleep. The same laws govern dreams as common images, the only difference being that in dreams there is less control, hence the dream-images are more strange and fantastic. Somnambulism is a state of profound sleep in which a person is partially awake and walks about. Hypnotism is a form of sleep brought on by artificial means of some kind at the hand of an operator. It is known by various other names, as, mesmerism, animal suggestion, auto-suggestion and suggestion (79).

3. Value

Napoleon said that the imagination governs the universe. "Where there is no vision," said Solomon, "the people perish" (Prov. 29:18). The imagination has been called the torch of civilization. It is the creator of ideals. Every product from the soul of man is "in the mind's eye" before it is contributed to the world. Children love stories on account of this gift. Youth dreams of making the world better, and dedicate themselves to heroic tasks for God and humanity, due to it. Adults add to their power and pleasure because of it. As Breese (80) says, "We actually create our futures through the kind of images we entertain."

No one can make better use of the gift of imagination than the teacher and preacher. Do not keep your imagination in a sling, like a broken arm. Exercise it. Feed it.

A. QUESTIONS AND ASSIGNMENTS

Define presentation. Representation. I. Define association as a power, a process and a product. Discuss the theory of the physical basis of association. The limitation of the theory. State and illustrate the laws of association. Classify associations. State the value of association. Its place in the history of psychology. II. What is memory? What is the physical basis of memory? What are neural pathways? Analyze and illustrate memory as a power to record. To retain. To recall. To recognize. Explain what is meant by idea. Classify memory as to sense organs, meaning, material, and activity. Estimate its value. What is the value of learning the catechism by heart? What has been the place of memory in teaching? III. Discuss imagination as to its meaning. Classification. Value.

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CHAPTER EIGHT

KNOWING: THINKING— CONCEPTION, JUDGING, REASONING

In presentation the soul was furnished with the raw material of knowledge, mainly from the outside world. In representation this knowledge, which had been stored away, was brought out of its subconscious storehouse and either restored exactly as it had been received or made over into new forms.

In addition to the general powers of presentation and representation the soul has a third general power of knowing, namely, thinking (81). Thinking is the power of the

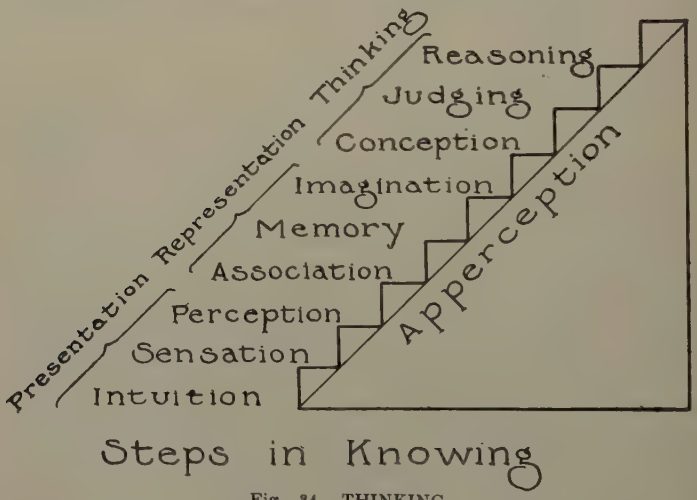

Fig. 34. THINKING

soul to form general, or abstract, notions, and to apply them to a great variety of intellectual acts. Notions (from the Latin notio—knowing) are any apprehension or un-

derstanding of whatever may be known. Notions are either particular or general. Particular notions pertain in every case to particular things, individual objects, concrete examples. Every sensation is a particular notion, and every percept likewise. But if the soul were limited only to particular notions it would be limited to individual experiences. All knowledge would be original, but fragmentary. Human gesture would not have anything symbolical about it. Vocal language would be very primitive indeed. As White (82) says, "The sentence, if not the word, would be impossible." Therefore the need of general notions. General notions are not particular, do not refer to single individuals; they are wide in extent, comprehending many individuals of a class, but shallow in content, abstracting, or withdrawing from individuals, only such attribute or attributes as are common to the class. There are three steps in thinking—conception, judging and reasoning.

The soul always acts as a unit. If it knows, it also feels and wills; if it wills, it also knows and feels. When it thinks, it also makes use of its presentative and repre-

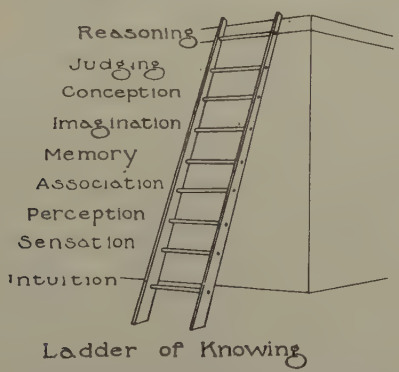

Fig. 35. EVERY RUNG IN USE

sentative powers; when it perceives, it also makes use of its representative and thinking powers. There could be no thinking without the cooperation of presentation and representation, for how could a man think without mem-

ory, and how could he remember if he had had no sensory experience? Nine steps in knowing have been listed. The mutual support which these nine steps give each other is shown in the Diagram (Fig. 35) of a ladder of knowledge. To get to the top of the ladder one needs all the rungs and the strong beams supporting them and holding them together. The lowest rung needs all above it; the highest rung needs all below it.

I. CONCEPTION

1. Analysis

Conception is the first step in thinking. It is the power of the soul to unite individual notions into general notions; of turning percepts into concepts; of grouping individuals into classes: "of thinking many into one."

To illustrate: Here are eight individual books, each one of which, when placed before our eyes, produces an individual percept. Can we get a notion of book apart from these eight particular examples and apart from any other individual case, that is, can we conceive of book in the abstract? We can. How can we get a general notion, or concept, of book? There are five things to do: (1) Observe the books (observation); (2) pick out their qualities (abstraction); (3) compare these qualities in order to find only those that are common to all the books (comparison); (4) form a conclusion on the basis of the preceding steps (generalization); and (5) apply the name and define it (denomination). Thus: (1) We observe the books. (2) We pick out their qualities, some of which are as follows: Book 1—leaves bound at back, cloth cover, brown color, printed page. Book 2—leaves bound at back, cloth cover, black color, printed page. Book 3—leaves bound at back, cloth cover, black color, typewritten page. Book 4—leaves bound at back, cloth cover, red color, printed page. Book 5—leaves bound at back, cloth cover, gray color, handwritten. Book 6—leaves bound at back, cloth cover, green color, printed page. Book 7—leaves bound at back, no cover, white color, typewritten page. Book 8—leaves bound at back, board cover, gray color,

blank page. (3) Now we compare these qualities. All the books had leaves bound at the back, not all had cloth cover, one had no cover, not all had the same color or the same kind of writing. (4) It becomes more and more clear that color, covers and writing are not the same in these eight books, and are not essential qualities. The only quality found common to the eight is that of having a number of leaves bound together. (5) Hence, for the present, our concept of book is, that it is a collection of sheets of paper bound together at the back.

2. Classification

One method of classifying concepts is on the basis of perfection. Concepts are either perfect or imperfect. To make a perfect concept every individual in the world belonging to it must be examined, but, as this is nearly always practically impossible and unnecessary, few concepts are absolutely perfect. When a child conceived of father at first as a man with a beard like his own father, his concept was imperfect. When a missionary in Africa told his converts that in Europe water turned to ice in winter, became so hard that you could walk on it, a native replied that so far he had tried to believe everything, but this story was too much for him to accept. His concept was imperfect.

Concepts are the coins of thought. Being of various degrees of imperfection, they vary in size, from pennies to double eagles, so to say. We may have penny concepts, nickel concepts, dime concepts, dollar concepts. A word does not have the same extension and depth of meaning to everybody, nor the same meaning at all times to the same person.

Since concepts are expressed by words, and every word may be a concept, the dictionary may be looked upon as a treasury of concepts. Words are divided into parts of speech. Concepts can be classified to conform to the parts of speech. Thus: Concepts of things—nouns and pronouns; concepts of events—verbs; concepts of qualities—adjectives; concepts of manner and circumstance—

adverbs; concepts of relation—prepositions and conjunctions.

3. Value

Life teems with particular facts. Millions upon millions of them stare everyone in the face. Without general forms of thought the confusion would be inconceivable. The human soul, therefore, constantly strives after general truths. The infant forms concepts before he lisps a word. The child early tries to classify his knowledge, and fixes the classification by means of language. Rapid strides in this direction are made by the youth. Maturity and old age keep up the pace. Power of conception and language power generally go hand in hand (83). This statement does not contradict the fact that we know more than we can express in words. Says the student time and again: "I know, but I can't say it."

It follows that if one has a good vocabulary he should, other things being equal, be a good thinker. In his book,

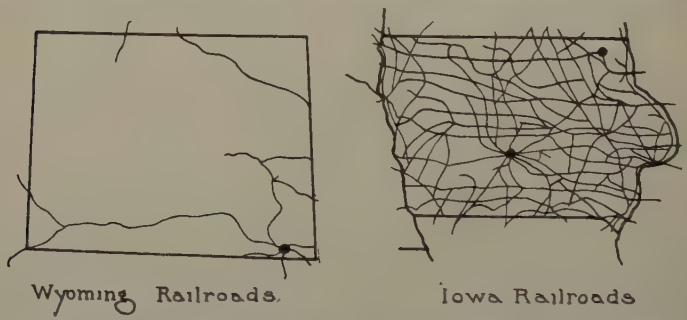

Fig 36. ILLUSTRATING COMPARATIVE TRAINING AND THINKING ABILITY

Iowa has better railroads and more of them than Wyoming, hence more commerce. The mind that has most neural pathways in use with better organized connections will have the greater ability to think readily and clearly.

"Teaching to Think" (84), Julius Boraas makes an earnest plea for vocabulary as a measure of thinking ability. He argues that the man with the best stock of words will have the best stock of concepts, and the man with the best

stock of concepts can reason best. To illustrate his argument he displays the railroad maps of Iowa and Wyoming. He asks whether on the basis of these maps one could not safely conclude which state has the most commerce. He cites also some of the authorities on mental and educational tests to show that they, too, rate their vocabulary tests as having far higher value than any other single test in their scales (85). Of course, he is aware of the fact that a large fund of words in itself is no measure of thinking ability. Some people have the gift of gab, with a deluge of words to a drop of sense. The best writers use few words, simple and precise words. Ordinarily, however, the size of the vocabulary is a good measure of ability to think, at least in any particular language.

In general, it is safe to conclude that it is wise to lay up a good store of words. Great men of thought have usually had a great command of language. They have had an ample supply of words, and have been able to use them with propriety, purity and precision, simply, clearly, emphatically, elegantly. Such masters of language were John the Baptist, Paul, Luther, Shakespeare. Such was Christ, Who spake as man never spake before or since. A nation's greatness is not measured only in square miles and size of armies and navies. It can be measured in various other ways, as, by the number of words in its language and the character of its literature. The power of conception gives a command of language, and the study of language increases the power of conception. The study of foreign languages widens and deepens the knowledge of one's own tongue. Since concepts are based primarily on presentation, just as are also memory and imagination, and since there is a natural tendency to form new concepts and to modify old concepts, we should constantly strive to get new percepts and concepts and seek to clarify the meaning of the concepts that we have. Concepts may petrify. A man may settle down to narrowness and shallowness in thinking.

II. JUDGING

1. Analysis

Judging is the second step in thinking. It is the power and process of the soul of uniting concepts into a new concept. When children first begin to speak, they speak in single words like "mama," "papa." These words are at first names of percepts, but soon take on the nature of concepts, ever growing in content. After a while language begins to be spoken in the form of short sentences, as: "Mama come," "Papa here." An attempt is thereby being made to assert some relation between the concepts in the mind. Two or more concepts are being united into new and larger concepts. This product in psychology is called judgment. In logic (the science of thinking) it is called a proposition. In grammar it is called a sentence. Some men were walking along the beach of a California river and noticed some yellow sand. They had the concepts of yellow and sand and gold. It occurred to them to unite their concepts into a brand new concept, a judgment. "This sand is gold," said they, and, in this case, their judgment proved to be correct.

2. Classification

On the basis of perfection, judgments are either perfect or imperfect, correct or incorrect. Imperfect judgments are caused by lack of correct concepts and haste in comparison. The natives of California had had hazy concepts of gold, hence they did not recognize the gold that they trod under foot. Many incorrect judgments are caused by "jumping at conclusions" and by prejudice. An example of haste is the action of the Jews in hailing Jesus as their king, and then a few days later violently calling for His crucifixion. An example of prejudice is the action of the Pharisees in condemning Him to be crucified because they wanted Him out of the way.

Another classification of judgments is on the basis of source. On this principle judgments are either intuitive or deliberative. The intuitive judgments are arrived at immediately and are apt to be correct, being based on the

innate ideas of the soul. The deliberative judgments are reached more slowly, may support the intuitive judgment, or may be different. Sometimes a deliberative judgment is said to be contrary to a man's common sense. Common sense is a sort of practical judgment resting on intuition and experience. Thornton (86) remarks that common sense is uncommon, but his judgment on this point is no doubt incorrect.

3. Value

Judging enters into all the stages of knowing, feeling, willing, conscience and faith. Fools are poor judges; sages are good judges. Good judgments open up possibilities and spell progress. Columbus judged the world to be round and set out on his voyages of discovery. Luther judged the Bible to be the infallible Word of God and ushered in the modern age. In the course of law the conclusion of a court trial is called a judgment, being the sentence of the judge. In God's Supreme Court there is also a judgment, which fixes our weal or woe. "His judgments are true and righteous altogether" (Ps. 19:9). In view of the great value of the power of judging it should be abundantly exercised. There was a vessel that signaled to another vessel that its crew was dying of thirst. The vessel signaled to, replied: "Draw from the sea and drink. You are at the mouth of the Amazon." The thirsty crew had plenty of concepts as to water and drink, but had not joined the concept of sea water with the concept of drink. Science is continually announcing new discoveries—radio, telegraph, telephone, and a thousand others of quite recent date. In each of these, concepts have been united into judgments. Vast energy is still latent in the sunbeams, winds, waves, and other forces of nature, all ready to be applied to human welfare, as directed by human judgment. Untold triumphs for judgment await mankind in every other field of endeavor, in production, manufacturing, trade, transportation, personal, professional and public service, in philosophy, art, morals, religion, etc. Let children and youth be encouraged to form judgments, independent judgments, effective judg-

ments, sound judgments. It will mean progress. It will add a few more to the relatively small number of individuals that lead in the world of thought and endeavor.

III. REASONING

1. Analysis

Reasoning is the third and last step in thinking. Reasoning is the power or process of uniting two or more judgments into a new judgment, called reason, inference or conclusion. As in conception we compare two or more percepts, and in judging we compare two or more concepts, so in reasoning we compare two or more judgments and decide whether they agree or differ. From this comparison we make a new judgment, which differs from the judgment in judging, only in being more formal and deliberative. Reasoning is the highest form of thought. Psychology and logic (87) both inquire as to the nature of the soul in reasoning, though not from the same point of view. Psychology is interested in the power, process and product of the soul known as reasoning, as something belonging to the soul. Logic is interested in reasoning, as rules of correct thinking and laws of truth. Psychology calls the three steps in thinking conception, judging, reasoning; logic speaks of terms, propositions and syllogisms; grammar has something corresponding in its words, sentences, paragraphs.

2. Classification

The two chief forms of reasoning are induction and deduction. The combination of induction and deduction is called the complete method.

An example of *induction*. In reading about Adam we soon discover that he was a sinner. Likewise, Cain was a sinner. Noah was a sinner. Also Abraham, Jacob, Moses, David, Solomon, and everybody, male and female, old and young, including ourselves. Finally, after having found not a single exception, we quit our search, make a short cut, and conclude: "Therefore all men are sinners." We began with particular cases and were led up to a gen-

eral conclusion. This is reasoning by induction. Induction is the process of establishing a general proposition based on the evidence of particular cases. It is reasoning from the individual to the universal.

An example of *deduction.* If we start with the statement that all men are sinners, we can reason as follows: (1) All men are sinners; (2) Adam was a man; (3) Therefore Adam was a sinner. Here we begin with a general proposition and apply it to a particular case. We can in like manner apply it to Cain, Noah or any other mortal. This is reasoning by deduction. Deduction is the process of following out a general proposition into its particular applications. It is reasoning from the universal to the individual. The first proposition is called the major premise. The second proposition is called the minor premise. The third proposition is called the conclusion.

An example of the *complete method.* Beginning, as above, with Adam, Cain, Noah, Abraham and the rest of them up to the conclusion that all men are sinners—this is induction. Then, taking a fresh start with the general statement that all men are sinners, making application to Adam, Cain, or anyone else—this is deduction.

In actual practice men use many short cuts of these methods and other methods besides, as, for instance, reasoning by analogy. If two things resemble each other in one or more respects, and if a certain proposition is true of the one, then it is true also of the other—this is reasoning by analogy.

The teacher needs to use both induction and deduction and should know the nature and advantages of each. Induction is an upward movement of thought from particular instances to general truths; deduction is a downward movement from general truths to particular applications. Induction leads up to definition, principle, rule or theory. Deduction leads from a definition, principle, rule or theory down to an illustration of it. Induction leads to new knowledge; deduction illustrates old knowledge. Induction is the method of discovery; deduction, of verification. Induction is slow, being a first hand method, the

natural method of education; deduction is quicker, as one avails himself of knowledge that others have acquired, and it is the common method of instruction. In induction you draw out of the child; in deduction you put into the child. The complete method should be followed wherever possible. Most text books are on the deductive plan in order to save space. Revealed religion can only in a small measure be taught inductively. God's Law and Gospel must be the starting point and must be applied to each and everyone.

3. Value

Reasoning is one of man's highest and most useful traits. He that does not reason is a slave. He that will not reason is a bigot. By means of reason one can live an independent and unfettered intellectual life, limited only by his native ability, his scholastic attainments and the nature of the problems. Man holds dominion over the beasts partly because he can reason, they can not. He makes progress, they do not. His reasoning is not always correct, being plentifully sprinkled with fallacies, nevertheless the lines of Tennyson seem to express a great truth when he sang:

Yet I doubt not through the ages
One increasing purpose runs,
And the thoughts of men are widened
With the process of the suns.

The reason why men do not reason alike, think alike, on all questions, or any one question, may be due to a variety of causes, as, difference in native ability, difference in amount of knowledge, training and experience, difference in view point, feeling, will, conscience, belief. An idiot girl by the name of Abbie (88), after ten years of intensive training under the best specialists, did not know how many fingers she had on both hands, while Francis Galton at the age of six was conversant with the "Iliad" and the "Odyssey," and at seven had classified the insects and minerals of his collection. The idiot can

never keep pace with the genius in reasoning. Again, the judgments of the young and the old differ, because the old have more knowledge and experience than the young, and perhaps a different view point. A family group is reading about Jesus stilling the storm on Galilee. Grandpa has spent most of his life on the sea—he uses this experience as a background to his thoughts. Father has barely seen the Great Lakes—he uses his knowledge in forming his conclusions. Sonny has never seen any large body of water—he has only a vague notion of what is meant by sea and stilling of the storm. The law of apperception works out in reasoning as in all other mental activities in this way, that "to him that hath shall be given." A beginner spends a year of very hard work over an elementary arithmetic; a professor in college mathematics can read through the same book in ten minutes because he has had more of a background and training. And, finally, the difference in judgments may be due to one or more of the other causes mentioned, as, feeling, will, conscience, faith.

While reason is the highest of man's intellectual powers, it must not be forgotten that it has its limitations. Some of the limitation is relative and some of it is absolute. Thus, a child can not understand calculus, nor even algebra, perhaps not even arithmetic. But, as it grows older it increases in knowledge and power to understand. The child is then only relatively limited in its capacities to reason. And there are also many problems which science in its experimentations, and philosophy in its speculations, can not solve. Man will never, for example, grow to that stature that he can completely comprehend God. There are many things that are accepted in faith, even by science, rather than in understanding. The forming of ideals, speculative ideals, aesthetic ideals, ethical ideals, and religious ideals, is said to be the highest function of reason. Nevertheless, the credit for the ideals in many cases can not be ascribed to the reason alone, if at all. Reason has its limitations, and the so-called "free thinkers" who will not accept anything that they can not understand by way of reason, are at best a

sorry-looking class of jailbirds. The truth that makes free indeed, with respect to reason, is, that while reason is the highest of the steps in knowing, it is not the highest power of the soul (89). I can not, for instance, by my own reason or strength believe in Jesus Christ, my Lord, or come to Him.

A. QUESTIONS AND ASSIGNMENTS

Define presentation. Representation. Thinking. Notions. Particular notions. General notions. Abstractions. Name the steps in thinking. Show the interdependence of the nine steps in knowing. I. Define and illustrate conception. Explain each of the five processes, or formal steps, of conception. Classify conception as to perfection. As to parts of speech. Give a statement of the value of concepts. What is the relation of language ability and conception? Explain the growth of concepts. Their petrification. II. Discuss judging as a power, a process, a product. Classify judging on the basis of perfection and source. Why do men differ in their judgments? What is common sense? What is the value of judging? Its possibilities? III. Discuss reasoning as to meaning, classes, value, limitations.

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CHAPTER NINE

FEELING

The soul always acts as a unit. At the same time it manifests this unitary action in a variety of ways. Sometimes, as we have seen, it is busy looking at something with the eyes, and at other times it is as busy trying to recall what it had examined by sight. Now it is occupied with perceiving, then again with conceiving, or imagining, or reasoning, or some other act. All the manifestations of the soul's powers, processes and products so far considered in detail belong to the general class called knowing. Now we shall consider another general power on a par with knowing, namely, feeling.

I. ANALYSIS

So far it has been our endeavor to analyze the different steps in knowing. To analyze is to separate anything into its elements or constituent parts, for the purpose of examining each part by itself. It is a process of discovering differences and relations. It is just as important in practical life as in theoretical studies. Through lack of discrimination a man may grab a wrong bottle of medicine, take a dose of poison by mistake, and kill himself, or he may invest his money in an unsafe venture and lose every cent. With respect to the feelings, it is of practical importance to be able to analyze them, for they give life its tone and are the chief motive forces of the soul. The analysis of the feelings is a very difficult task, for they are the most vague, elusive, and changeable of the powers, processes and products of the soul.

1. Definition

Man lives in the world and comes into contact with it. Through his senses he gets knowledge of the world.

He is either pleased or displeased with this knowledge. This aspect of pleasure or pain accompanying knowledge is called feeling.

When Satan tempted Eve to eat of the forbidden fruit, she knew what he wanted her to do. She had knowledge of the fruit that it was forbidden. She had, furthermore, a feeling that it "was pleasant to the eyes." It might have made an unpleasant impression upon her, but in this case it did not. Just so it is with any piece of knowledge—it can affect a person either pleasantly or unpleasantly, more or less either way, from zero to wildest extremes. A telegram is read in the stock exchange. At the news some become exceedingly glad and shout for joy, while others become exceedingly sad and are on the verge of despair. Knowing and feeling are then present in every experience. Knowing is the power to be aware of the existence of objects and their relations to one another; feeling is the power to be aware of the pleasant or unpleasant aspects of consciousness. A pin pricks and causes pain—this sensation is knowing. This pain is unpleasant—this unpleasantness is feeling. Feeling is a power, a process and a product.

That feeling is not the same as knowing can be proved by various arguments, as, for example, the following: The same fact can produce in two different people who understand the fact in the same way two entirely different feelings. Sensations have their origin in some sense organ and have a sort of local mark; feelings are either not located at all, or seem to have their seat in the heart. Sensations are clear according to the amount of attention they receive; just the opposite is true of the feelings. The more we attend to the sensations the clearer they become, but the moment we begin to attend to the feelings they tend to become unclear and elusive.

2. Physical Basis

The body and the soul interact and mutually influence each other (90). The feelings, then, will in large measure be dependent upon the condition of the body and the

activity of the neural system, and the body, in turn, will be affected by the feelings in their play.

The state of the body affects both feeling and knowing. An eye that is blind can not see, and a tooth that is out can not ache. It is well known that stupefying drugs can be applied to the nerves to deaden pain, and that cold, intoxication, and hypnotic sleep can have the same effect. In modern surgery a man can watch the doctors amputate his leg without being conscious of pain. The thought of the loss of the leg naturally is not pleasant, and yet the operation is much more pleasant than if the nerves had not been deadened to pain.

Every one has experienced to some extent the effect of the feelings on the body, particularly on the heart. In receipt of good news, you laugh outright with glee, your body straightens, your breath comes faster and

Fig. 37. RELATION OF FEELING TO KNOWING

deeper, your heart beats quicker, your footsteps fall lighter, your digestion improves, you take a firmer hold on life. And, on the other hand, bad news brings tears. Your head bends low, the breath comes slower, the heart is heavy, the feet are like lead, the system is filled with gastric poison, making you miserable beyond expression. In violent and sudden emotion, as, fright, anger, joy, sorrow, great surprise and overwhelming loss, the heart at first almost ceases to beat, then after a short pause, it starts again at double-quick time. The emotion often brings tears, fainting, convulsions, paralysis, and even death. In case of anger the whole business of digestion stops. The adrenal glands start pumping their secretions into the blood, strengthening the action of the heart; the liver discharges sugar into the blood and muscles; the lungs draw in more oxygen; the body is protected against fatigue. All in all, in the state of anger, some parts of the body lay off and other parts get ready for the fray.

3. Causes

In a general way, feelings may be said to have their rise in knowing. Adam and Eve first knew about the fruit and then took a liking to it. Jacob first saw Rachel before he fell in love with her. In harmony with this psychological order most psychologies have chapters on Knowing before they deal with Feeling. Not all the feelings originate in the sensation of sight or the activities of the other sense organs. Many of them, if not most of them, have their origin in central processes,—in association, memory, imagination, thought, conscience, faith.

Every feeling is accompanied by an impulse, and there are no impulses without feelings. Common sense says that the feeling is the cause of the impulse. We lose our fortune, are sorry, and weep; we meet a bear, are frightened, and run; we are insulted by a rival, are angry, and strike. Common sense follows the order: Knowing, feeling, willing. But some scholars think otherwise. They hold what is known as the James-Lange (91) Law, named after the two men who first made it popular. They said that common sense is wrong. We do not cry because we are sorry, but we are sorry because we cry; we do not run because we are frightened, but we are frightened because we run. If this law is valid, then the cause of feelings is no longer primarily knowing, but willing and impulsive action. The truth of the matter is this: Knowing is the cause of feeling, and feeling leads to impulses; these in turn react on the feelings, and feelings react on knowing. We lose our fortune, are sorry, and weep; we weep, are more sorry, and realize our loss the more.

4. Attributes

Feelings, like sensations, possess certain essential characteristics or attributes. The four most important are: Quality, intensity, extensity and duration (92).

With regard to *quality,* take an illustration from sound. Quality has reference to the composition of sound. It is based on a physical law. Take a stretched string

and set it in vibration. It will vibrate as a whole, giving the fundamental sound, and then it will break up into segments, each of which vibrates as an independent string. This is true of all sounding bodies, including the vocal cords. No sound will be simple unless it vibrates only as a whole. Nearly every sound is complex. It consists of the whole vibrating, which is the lowest tone, the fundamental tone, and of the parts vibrating, which are higher tones, called overtones, or partials, sometimes harmonics. The pitch is reckoned from the fundamental tone; the quality from the number and strength of the overtones. As many as sixteen overtones have been detected in a bass voice. The quality of a sound is due both to the peculiarity of the material and the structure of the instrument making it, and also to the peculiarity of the thought, feeling and purpose of its utterance. The ear can readily distinguish between the sound of the human voice and any other sound instrument, because no two instruments are identical in material and structure. This individuality is called timbre. We recognize each other over the phone and in the dark by the timbre of the voice. The ear can also readily distinguish between sounds due to change of thought, feeling or purpose. Every voice has a color for the ordinary and colors innumerable for the extraordinary. So it is with the feelings. They are of many kinds, and seldom simple. There is a fundamental tone in every feeling, and on top of it perhaps a dozen or more overtones due to timbre and color, due to the nature and character of the person, the changing thoughts, purposes and circumstances.

With regard to *intensity,* let sound again furnish an analogy. The same sensation, without changing its quality, may vary in intensity from the weakest to the strongest. Intensity in sound is called force, and has reference to the loudness of sound. Loudness, is, of course, subject to physical laws. In a stringed instrument it depends on how far the string vibrates, how hard it has been struck. In the voice it depends upon the force of expiration. The degree of force in the voice is from faint whisper to mighty shout. The manner in which

the sound is begun and ended varies. Now it is effusive, beginning smoothly, continuing smoothly, ending smoothly, like the moaning of the wind or the mournful howl of a dog. Then, again, it may be expulsive, beginning abruptly and ending gently, like the babbling brook and the prattle of children. Or, it may be explosive, beginning abruptly and ending abruptly, like the sudden peal of thunder and the piercing laughter of children. Intensity can also be looked at from the viewpoint of stress. Stress is the location of special force on some sound or sounds uttered or made. The stress is different in the cough, the whine, the growl, the taunt, the call, the prolonged wail. A speaker or reader naturally dwells on the central idea of each thought group and applies more force to the central idea, as when a man crosses a stream by leaping from stone to stone. Just so it is with the feelings. They display a great variety of intensity in regard to degree, manner and stress. They are faint and weak as the gentlest zephyr, or fierce and strong as the most destructive tornado. They begin and end differently. The stress is differently applied.

With regard to *extensity,* sound again can furnish us with a parallel. We use extensity here to mean a kind of bigness, besides position, direction and distance. The roar of the lion is bigger than the squeaking of the mouse; the low bass note sounds bigger than the high treble note. Position has reference to pitch, and pitch has reference to the shrillness of sound. Pitch is determined physically by the number of vibrations of the sound waves per second. When the number of vibrations is small, the pitch is low; when great, the pitch is high. The fastness depends on the wave length. There is a limit to hearing capacity, varying with the individual. Direction has reference to the inflection, or slide of the sound from one point of pitch to another; or to the skips, or leaps from one point of pitch to another; or to the melody, or close succession of inflections and skips. Pitch is the result, either of the character of the voice or sounding instrument, as, some voices are naturally high, and others low, according to the lengths and densities of the vocal cords;

or it is the result of the thought, feeling, purpose or other circumstance. A message of despair seeks a lower range; one of exultation seeks a higher. Inflections and skips are the results of certain thoughts, feelings, purposes and other circumstances. Melodies being composed of inflections and skips, are also the results of various circumstances, and this applies as much to the melody of speech as of song. Distance has reference to the reach of the sound. Some voices have a wide range; others, a narrow. The average voice is about two octaves; the greatest extremes are nearly six octaves apart, from C of 32 vibrations to C of 2,048, from lowest C on the piano to next to the highest C on the piano. Musical instruments have, as a rule, a wider range than the human voice. The feelings are like the sensations in extensity. Some of the feelings feel bigger than others, are on a different pitch, show all the phases of inflection, skip and melody. There is a constant fluctuation. Today we are glad; tomorrow, sad. Yesterday the war spirit ran high like the foamy billows in a storm; today the troubled sea of the human heart lies more peaceful again. Joy and sorrow are next door neighbors and take many a journey hand in hand. Homer describes Andromache as laughing amid her tears, as Hector hands her their little son, that he himself may hasten to battle. Paul was "sorrowful, yet always rejoicing" (2 Cor. 6:10). "Our sincerest laughter with some pain is fraught."

With regard to *duration,* let sensation furnish a final illustration. In sound the duration is called time. Its source is a vibrating body, each vibration being capable of continuing only a limited time. It may be analyzed as rate. quantity, pause and rhythm. Rate is the speed, with fast, medium and slow, as measures of rate. Quantity is the time length devoted to any part, as some notes are held longer, some words are dwelt on longer. Pause is a temporary rest, an interval of silence. Rhythm is the swing, or harmonious flow, of sound. Rhythm is a natural law. Consider the rhythmic movements of nature—the revolutions of the heavenly bodies, the ebb and flow of tides, the procession of the seasons, the

beating of the pulse, the breathing and walking and thinking and feeling of man. "Deep in the world heart stand its foundations." So it is with the feelings. Not only do they fluctuate up and down as in pitch, but they ebb and flow as the tides. The taste of the candy or the smell of the violets exhausts itself in the moment of enjoyment. Some pleasures are of longer duration. They say that true love can never die. The pleasure of a fine landscape, a beautiful face or a kind deed pervades one's life, with varying intensity, for years and years. On the whole, feelings that originate and terminate chiefly in sense organic activities do not last as long as those that originate and terminate in central psychic processes, as, memory, imagination, thought, conscience, faith.

II. CLASSIFICATION

No one seems as yet to have succeeded in making a complete and fixed list of the feelings. Baldwin (93) groups them under three heads—egoistic, altruistic and cosmic, but his list is not complete. Magnusson (94) submits three classes—bodily feelings, emotions of self-preservation and emotions of self-expansion, but he does not pretend to give an all-inclusive list. White (95) has two main classes—the corporeal and psychical feelings, to which he adds a third class—the voluntary feelings. His list is far from complete. Yerkes (96) recommends any of three ways as a basis for classification—according to their psychological properties, as pleasant or unpleasant (97); according to the sense organs to which they are referred; and according to the stimuli which set these sense organs into action. All these, and many other classifications, are valuable and interesting. The student should also try to make his own list and classification. He might tabulate the feelings that he finds mentioned in psychologies, dictionaries, fiction, poetry, Scripture, daily speech, etc. As in the following classifications he might group the individual feelings as to origin, or as to composition, or according to some other principle.

1. As to Origin

Every act of knowing awakens some feeling, agreeable or disagreeable. According to this classification, there will be a group of feelings to correspond to each of the steps in knowing—intuition, sensation, perception, etc.

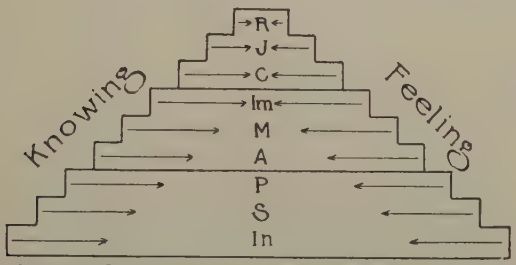

Fig. 38. CLASSIFICATION OF FEELINGS AS TO ORIGIN

Every form of knowing may set up a corresponding feeling. Thus: There are intuitive feelings arising out of intuitions: there is a feeling of disagreeableness arising from the sensation of toothache; the memory of a departed friend can excite either sorrow or joy, and so on.

There are intuitive feelings arising out of intuitive knowing. Sensations delight or annoy. Perceptions please or displease. Associations are fair or foul. Memories gladden or sadden. In short, by this method it is possible to make quite a formidable list of feelings.

2. As to Composition (98)

Since the feelings had their rise primarily in the sensations, and are intertwined with sensations, they can be grouped as physical or organic feelings. Since some had their rise primarily in the higher thought processes, they can form another group bearing the name psychical or ideational feelings. Strictly, all the feelings are psychical, and there is no such thing as a physical feeling. Some are called physical merely because they have their rise more immediately in the physical organism and seem to be composed of organic sensations. Pain is an organic

sensation, but it has also a feeling side. The classification, in abbreviated form, is as follows:

(A) *Physical*

(I) Sensory

(a) General
- (1) Organic
- (2) Kinaesthetic

(b) Special
- (1) Sight
- (2) Hearing
- (3) Taste
- (4) Smell
- (5) Touch—pressure, pain, warmth, cold, etc.

(II) Appetites

(a) General
- (1) Respiration
- (2) Thirst
- (3) Hunger
- (4) Sleep and rest
- (5) Exercise and work

(b) Special
- Sex

(B) *Psychical*

(I) Affections

(a) Pleasant-unpleasant Series
- (1) Admiration-disgust
- (2) Benevolence-malevolence
- (3) Calmness-anxiety

And 100 or more others, through the whole alphabet.

(b) Unpleasant-pleasant Series
- (1) Abhorrence-attraction
- (2) Boldness-bashfulness
- (3) Cowardice-courage

And 100 or more others, through the whole alphabet.

(II) Emotions

(a) As to persons
- (1) Egoistic (Self)

(2) Altruistic (Others)
(3) Religious (God)

(b) As to things
(1) Speculative, or intellectual (Truth)
(2) Aesthetic (Beauty)
(3) Moral (Goodness)

The sensory feelings are such as are aroused by some excitement of the nervous organism in connection with the sensations. The appetites are feelings occasioned by the vital wants of the body. The affections are the simpler feelings based on ideation. The emotions are the more complex ideational feelings. The affections and emotions glide imperceptibly into each other. The egoistic emotions refer to the self; the altruistic, to others; the religious, to God and worship; the speculative, to truth and knowledge; the aesthetic, to beauty of every kind—face, form, line, tone, wit, humor, nature, art, character, etc.; the moral, to right and wrong, justice, goodness, duty.

The external signs of the feelings may vary greatly, depending on age, sex, temperament, training and other factors.

It is with feelings as with waters,
The shallow murmur, but the deep are dumb.

III. VALUE

The feelings are the great motive forces (99) of the human soul. The sensory nerves bring knowledge of the outer world to the soul; the motor nerves carry messages from the soul to the outer world. The knowledge transmitted and created always sets up some kind of feeling in its wake, and this feeling reacts on the knowledge, indeed it becomes a motive power to urge the soul to act. Johnny comes to school against his wishes. He begins to learn. He gets interested, likes his studies, his teachers, his school mates, everything. His pleasure in the school work becomes an incentive to study. Thus the world is ruled by our likes and our dislikes. Interests

may abide long after the knowledge which gave rise to them has faded out and sunk down into oblivion.

Feelings are good servants, but bad masters. As servants, if of the negative, unpleasant kind, they may utter sharp warnings and urge us to protect ourselves; if of the positive, pleasant sort, they help us to bear our burdens and to look upon life with all its toil and sorrow as very precious and sweet. As masters, they drive men madly onward to satisfy the lust of the flesh, the lust of the eyes and the pride of life (1 John 2:16); they force men to despair and wreckage, insanity and suicide.

The world is no doubt swayed more by feelings than by thought, especially the more fundamental and instinctive feelings. A man commits murder, a crowd lynches a Negro, our country goes to war, all on account of some feeling or other of a disagreeable sort. One man gives his life for his fellowmen on the battlefield, another gives his on the mission field, a third faithfully bends his back over his shovel, all on account of some feeling or other of an agreeable sort. Jacob served seven years for Rachel; and they seemed unto him but a few days, for the love he had for her (Gen. 29:20). A prince of Sweden gave up the right to the throne in order that he might marry a girl of non-royal rank whom he loved. Even the Lord displayed the fundamental place of feeling in psychic life when "He so loved the world that He gave His Only Begotten Son." It is easy to believe in one whom you love, and it is easy to love one in whom you believe. The Bible says that love is necessary to fulfil the Law (Rom. 13:10).

A. QUESTIONS AND ASSIGNMENTS

Show how the soul acts as a unit and yet manifests itself in many ways. I. Define feeling as a power. A process. A product. Illustrate each term. Distinguish sharply between pain as knowing and pain as feeling. II. Classify the feelings as to their origin. As to their composition. Define "physical" feelings. Psychical feelings. Sensory feelings. Appetites. Affections. Emotions. Give the subdivisions of each class. Prepare a list of 100 or more pleasant affections and 100 or more of the opposite affections. Discuss the emotions. Illustrate each class. Discuss and illustrate the complexity of feelings. Show how feelings vary as to quality. As to duration. As to intensity. Show how they fluctuate. Illustrate how pleasure turns to pain, and vice versa. Illus-

trate the variation in the external signs. III. What is the position and value of feelings in the psychic life? What pedagogic value do they have?

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CHAPTER TEN

WILLING

Saint Augustine (100) speaks of "an indivisible soul which remembers, understands and wills." Here attention is called to the fact that the soul is indivisible and acts as a unit, but that it manifests itself in various faculties, one of which is willing. Augustine gave the will a kingly rank among the faculties of the soul, and for centuries it has been considered as such. Modern science has rather discredited this view, and some recent text books on psychology, as, Hunter's (101) and Watson's (102), do not even mention the will. Some deplore the use of the term, but employ it with a new meaning. Münsterberg (103) explains that the word "will" has besome rather colorless in causal psychology, and that as soon as will is resolved into its elements it is found that none of the elements has any will character. So also it is with the elements of water. When water is reduced to its constituent parts, it is found to consist chemically of two elements—two parts of hydrogen to one part of oxygen, in other words, the elements are two gases, in no wise anything like water.

The various powers of the soul may be studied separately, but they can not be thought of as acting separately. There is a constant interaction between know-

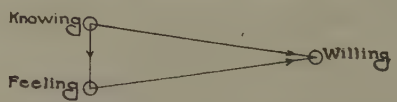

Fig. 39. RELATION OF WILLING TO KNOWING AND FEELING

ing, feeling, willing, conscience, and faith, and all the minor powers. There are no clear lines separating one power or process from the other, just as there are no clear boundaries between one ocean and another. Still

when one looks at the powers in perspective, they are quite distinct from one another. Knowing is not feeling, feeling is not willing, and willing is not knowing, no matter how much the waves from one of these mighty oceans flow into the others.

I. ANALYSIS

Willing is one of the commonest facts of human experience and knowledge. Jesus came unto His own, but they received Him not (John 1:11). "O Jerusalem, Jerusalem," He said, "how often would I have gathered thy children together, even as a hen gathereth her chickens

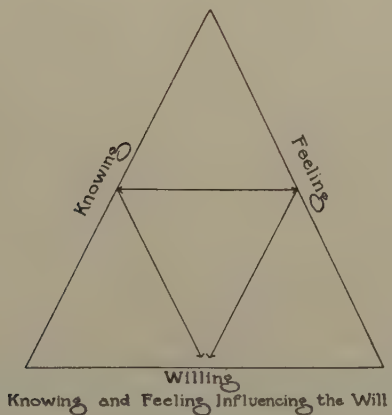

Fig. 40. WILLING

under her wings, and ye would not!" (Matt. 23:37). Jesus called the Twelve to follow Him, and they left everything to become His disciples. In like manner, every day of our lives, we all have experiences of one kind or another in which we either will to do a thing or not to do it. We are conscious of our power to consent and to refuse the solicitations of those who make their appeal to our will. When we have performed an act that we have willed to do, we are conscious also of the fact that

we might have willed otherwise. We are self-active, self-determining creatures, and the self-active, self-determining power of our souls is the will. Upon analysis the will is found to consist of a series of minor powers, processes and products, as, desire, deliberation, choice, purpose and act. The will can therefore be defined as the power to desire, deliberate, choose, purpose and act. Some call it volition (from the Latin volo—I will). Others call it conation (from the Latin conor—I try).

1. Desire

No consciousness, as already stated, is absolutely simple, except in theory. Will, in all its stages, is interwoven with knowing and feeling and other psychic elements. The first stage in willing—desire—is also very complex. Desire consists of knowing, feeling, and willing elements. For instance, in Holberg's comedy, "Jeppe paa Bjerget," Jeppe did so want to take another shilling's worth of strong drink; but his back warned him of the consequences—his good better-half would give him a deserved beating if he came home drunk. His stomach said he should; his back said he should not. He desired to get strong drink at the cost of a licking. His desire was a knowing in that it included an idea or image of what he desired. His desire was a feeling, in that it included both the pleasant and the unpleasant connections and consequences. His desire was a willing in that it was a striving towards the realization of the object. Desire is an imperious state of craving that demands gratification. The will is able to act in accordance with soliciting desires, or to resist and reject their appeals.

There are a number of words used as synonyms or antonyms of desire, among which should be noted: Wish, longing, hankering, coveting, motive, inclination (synonyms), and aversion (antonym). A wish is a less vehement form of desire. A longing is an impatient and continued species of desire. A hankering is a desire for that which is out of one's reach. A coveting is a desire for that which belongs to another. A motive is a desire

which precedes the choice and act. An inclination is a desire having become a habit. An aversion is the opposite of desire.

2. Deliberation

Deliberation occurs when there are conflicting desires, or a conflict between knowing and feeling, or knowing and believing, or conscience and feeling, or some other struggle for mastery. It is a process in which each conflicting desire pleads its own cause before the soul. "Take a drink—the taste is good." "Do not take a drink—the consequences will be worse." Deliberation takes time—there is a state of hesitation. Deliberation implies uncertainty—there is a state of doubt. Deliberation is at once a power of knowing, of feeling and of willing, the three in one.

3. Choice

Choice is the power to decide between the clamorous desires. It can be made exactly opposite to the ideas and ideals deliberated upon, and to the feelings that plead for mastery. The "Shall I?" or "Shall I not?" of deliberation is settled for the time being, and perhaps once for all, in choice. When two courses are open to us, choice is our power to decide to take one rather than the other. Choice, as stated above, is urged by desires and motives, and directed by ideals and deliberation. Within limitations, the self is free to choose. Materialistic psychologists hold that there is no freedom of choice. If a man commits murder, he simply could not choose otherwise. Circumstances called for murder and his behavior was accordingly. Instead of saying as Jesus did to Jerusalem: "Ye would not," these philosophers would have said: "Ye could not." Nevertheless, choice is a free act, whether it is a fiat or a veto, an acceptance or a rejection. Jesus chose freely to die; Judas chose freely to betray Jesus.

4. Purpose

Purpose is prolonged choice. Just as choice is preceded by deliberation, it is followed by a struggle to

maintain itself until action takes place. Purpose has two aspects: Resolution and perseverance. Resolution is the decision to make the choice effective; perseverance signifies the steadfastness between choice and execution (104). Demosthenes chose to become an orator. His choice developed into a purpose. He resolved to take time to learn the art of oratory at any cost. He had a poor enunciation and unpleasing mannerisms. So he set about to overcome his faults. To get a clear enunciation he spoke to the roaring waves of the sea with his mouth full of pebbles. To overcome a habit of shrugging his shoulders and making certain other meaningless, mechanical gestures, he took a position under a suspended sword. And so, by continued practice, by long perseverance, he became an orator, perhaps the greatest of all time. Perseverance is the science and art of never giving up.

5. Action

Action signifies the execution of the choice. It is possible to have high ideals and tender feelings without deliberation and choice. It is possible to have a good choice and a noble purpose without carrying them out in action. The road to Hell, it has been said, is paved with good resolutions. Action is the capability to do what we determine to do. Action is the execution of the choice.

There are some types of action that can hardly be called voluntary. One of these is called spontaneous, another is known as reflex. Spontaneous action may be illustrated by the earliest movements of the infant in stretching out his arms and legs due to growth and superabundance of energy. Reflex actions are all of the involuntary kind controlled by the spinal cord, in sleep as in wakefulness. If one touches a very hot stove unawares, the message will proceed along the nerves so violently that they will cause the cord and the sympathetic nerve system to act long before the message reaches the brain. The brain would take time to deliberate before it would respond, and some delays would prove fatal. Some actions, which at first were highly volitional, can become reflex, as, walking, talking, writing.

There are several grades of volitional actions, as: The instinctive, impulsive, imitative, suggested, habitual and chosen. Instinctive actions are based on the instincts and are controlled by a vague desire. Impulsive actions are performed on the spur of the moment, without much deliberation. Imitative action is a particular and predominant kind of instinct. Suggested action is a particular and predominant kind of impulse. Habitual actions are tendencies to repeat what has been done before time and again. As the twig is bent, so the tree is inclined. A lazy youth, a slothful man. In terms of physiological psychology, every act performed leaves its trace along the neural pathway, and every repetition deepens the trace. "Our habits," says Horne (105), "are brain ruts." "The brain and spinal cord are plastic enough to receive impressions and rigid enough to retain them," is Cramer's (106) comment. Habits are either our best friends or our worst foes. When habits are very deeply intrenched they become so much like reflex actions that it is hard to make distinctions. Chosen actions are the product of choice, as when Polycarp was willing rather to be burnt at the stake than to deny his Lord, and when Luther (107) took his famous stand on the Bible at the Diet of Worms, or, of less heroic proportions, when we decide to get up in the morning, get our breakfast and get ready for Sunday School.

Two very different kinds of action are spoken of as chosen voluntary acts. One is negative, the other is positive. In the negative, we simply let things happen according to the law of least resistance; in the positive, we inhibit or check our desires and wishes, carefully weigh and choose, and execute our resolves. Thus, if we smile when we are amused, we do what is natural and it costs no effort, our will being negative or passive. But if we refrain from smiling, then it costs an effort and our will is positive and active. Here we shall then think of negative will as action in the line of least resistance, and positive will as action in the line of greatest resistance.

What is a strong will? A strong will is a positive

will, one that overcomes obstacles, conquers temptations and wins victories over natural propensities. What is a weak will? A weak will is a negative will, but not every negative will is weak. A weak will is a negative will that forgets its ideals, yields to temptations, is deaf to duty, and follows the line of least resistance. The sluggard, the drunkard, the coward, are types of the weak-willed. It might be added here that this is the popular view, but not all psychologists share in it. Bolton (108), for example, says that a "strong will in the psychological sense is a trained will, and the temptation and the struggle are indications of disease of will or lack of perfect volitional development." According to the popular notion a man has a strong will when he is strongly tempted to go into a saloon, and yet does not; according to Bolton a man is strong when he is so trained that he needs not struggle against temptation of this sort. Perfect control and accurate execution are evidences of strength of will.

II. CLASSIFICATION

1. As to Steps

From first motive to final execution the will has five main classes: Desire, deliberation, choice, purpose and action.

2. As to Action

At least eight types of action can be distinguished, namely: Spontaneous, reflex, instinctive, impulsive, imitative, suggested, habitual, chosen. It must be remembered that man is compacted of body and soul and that these interact. The body as a physiological organism functions by night as well as by day, in unconscious as well as conscious moments. The body is so made that it carries on its work without the active attention of the soul. Breathing is involuntary, and is usually involuntary only, although it can become voluntary. It should be remembered that there are motor as well as sensory nerves, and that the self reaches the outward world not only through the sensory, but also through the motor equipment.

The will is not only directed inward upon mental processes and products, but also goes outward in muscular movement. Many of these acts, which at first were voluntary, can through repeated exercise become habitual and involuntary. Perhaps there is a germ of will even in the most involuntary of acts.

3. As to Freedom

Some, like Schopenhauer (109), say that will is two-thirds of life, yes, all of life. The whole world is will, they say. The grass grows, the wind blows, the sun shines and the day declines, because they will so to do. Others deny that there is any will at all. Darwin (110) calls it "the struggle for existence"; Angell (111), "the whole mind active." Meyer (112) says that "willing" is being teachable, "unwilling" is being unteachable, and that the degree to which one is teachable or not depends solely on the nervous system and not on the so-called will; there is no freedom in any sense. Spencer (113) says that if the will is free, no science of psychology is possible. The truth is, that man has will, and that he exercises this power with limited freedom (114).

The limitation of the will is, in the first place, of a physical kind. No one can fly, nor, by taking thought can he add a cubit to his stature. We are limited by the nature of our body and our surroundings. In the second place, the limitation is of a psychical kind. On account of inherited corruption we can not, for example, by our own will become the children of God. Yun Sing, a Chinese convert, in response to the question: "How did you find Jesus?" answered: "I no find Jesus at all; He find me." Luther (115) puts this truth as follows in his explanation of the Second Article of the Apostles' Creed: "I can not by my own reason or strength believe on Jesus, my Lord, or come to Him, but the Holy Ghost has called me by the Gospel." Paul writes in 1 Cor. 12:23, that "no man can say that Jesus is the Lord, but by the Holy Ghost."

The will, according to the "Augsburg Confession" (116), has some liberty for the attainment of civil right-

eousness and for the choice of things subject to reason, but it has no power, without the Holy Ghost, to work spiritual righteousness pleasing to God. The will of the unregenerate is powerless for what is good and inclined to do all that is evil (Rom. 8:7; 1 Cor. 2:14; Eph. 2:5). The natural man can not even will his own conversion.

III. VALUE

In the popular mind there has never been any confusion, as among scholars, as to the fact and importance of the will. There are proverbs, maxims, saws and sayings, on the lips of every people on these points. Listen: "Where there is a will, there is a way." "The will does it." "The will draws half the load." "Where the will is ready, the feet are light." "As the will is, so is the man." "When the will fails, the battle is lost." "I'll Try is a hero, I Will is a king."

By will in these sayings is meant a good will, a strong will. Of course, everybody has a will of some sort. There are bad wills as well as good, weak as well as strong. Bad wills may be strong in doing what is evil; they may be hasty, haughty, hostile, dreadful, dreaded, destructive; they may be provokingly firm and unreasonably unyielding. As stubborn as a mule, as wilful as a pig, is the saying. Weak wills need not necessarily be wicked, but at best they are too easy-going, yielding, feeble, fickle, or false, and they can be extremely harmful. The lazy bones and the sot, the human weathervane or reed that turns or bends with every passing wind of opinion, are illustrations of a weak will.

Here we are speaking about the strong will worth while. Everybody has a will, but not everybody gives his will its rightful place and exercise among the powers of the soul. The will, as Clarke (117) says, should be a "constitutional monarch, whose authority within certain limits is acknowledged throughout the system. If he chooses, like most monarchs, to extend his dominions and enlarge his powers, he can do so. By a judicious exercise of his authority, he can make every organ his cheer-

ful subject. If, on the other hand, he is careless of his position, sluggish and weary of constant vigilance and labor, he will find his authority slipping from him, and himself the slave of his ganglia." He should train for his high calling. "If a king will not train himself, how shall he demand obedience of his subjects?"

The way to train the will is to exercise it in the right direction. Set up high ideals and noble feelings, deliberate clearly and carefully, choose wisely, resolve bravely, persevere heroically, act promptly. James adds such advice as the following: Make the nervous system your ally instead of your enemy. Get right habits. Seize the very first opportunity to act on every resolution you make. Never suffer an exception to occur till the new habit is securely rooted in your life. Habits are prompted by the will, and will is strengthened by habit. Knowing and feeling furnish motives to the will; will gives new meaning to knowing and feeling. "If a man will do His will, he shall know of the teaching whether it is of God, or whether I speak from Myself" (John 7:17).

The will is always useful in the establishment of good habits and good character. Weeds grow without cultivation. Bad habits develop without training, following the line of least resistance. The storms of temptation beat upon every head, but the will weathers the storm. Motives of every base sort come as solicitors wanting this or that of the will. "Motives," says Porter, "impel, but do not compel." Everyone can say, in viewing a past action: "I might have done otherwise." The value of right choices is beyond comprehension. "Every choice," says Goethe, "is for eternity." "Friends," says Poor Richard (118), "the taxes are indeed very heavy; but we have many others, and much more grievous to some of us. We are taxed twice by our idleness, three times by our pride, and four times by our folly." The will is free to the extent of choosing to put an end to idleness, pride and folly. Stearns delights in the term permanent choices. Lunde calls them life choices. They are legion—choice of friends, school, courses, studies, congregation, occupation, helpmeet, residence and so on.

Each of these will no doubt be permanent in its influence. Although we accept the Biblical doctrine that in the higher spiritual things, as, saving faith, the will is limited, we find in spite of this limitation that the will has a kingly place among the powers of the soul, and is "monarch of all he surveys" (119).

Strong, well-trained wills are useful in all executive positions, from the lowliest servant to the mightiest ruler. We need it as often in the daily toil as we do in the crucial epochs of our lives. "Choose ye this day whom ye will serve" (Josh. 24:15). "Act, act in the living present." In all the higher levels of psychic life the will is in great demand. The most patient attention, the clearest thinking, the loftiest aspirations, the best regulated emotions, the keenest sense of duty, the firmest faith, involve the exercise of the will. Caffarelli became the leading singer of Italy by singing nothing but scales every day for five years. This took much will effort on his part. Händel practised on a piano until the keys were hollowed out like spoons. Tennyson rewrote one poem fifty times. Alexander the Great was a man of great executive power, but Aristotle excelled him. Alexander changed the map, Aristotle the thought of the world. It is written: "He that overcometh shall inherit all things" (Rev. 21:7). Jacob, struggling with the angel, said: "I will not let thee go, except thou bless me" (Gen. 32:26).

The gradations of the motives run from vague, fugitive wishes to intense and absorbing longings; the gradations of deliberation range from intuitive judgments to supreme-court-like decisions; the gradations of choice range from chaos to cosmos, from Hell to Heaven; the gradations of purpose range from fitful resolve to unyielding perseverance; the gradations of action extend from the most sinful and satanic to the most saintly and godlike. What an awful power is will! How destructive in its lower phases! How constructive in its upper reaches! What a wonderful change in man when the naturally corrupt will is renewed after the image of Christ, when we no longer live, but Christ lives in us

(Gal. 2:20), and when we can say as Jesus prayed in Gethsemane: "Not as I will, but as Thou wilt" (Matt. 26:39).

See, I pledge myself to Jesus,
What He wills, alone to will.
For my heart, which He hath filled,
Ever cries: Lord, as Thou wilt. (120).

Some, in their wonderment at the kingly power of the will, have made it synonymous with the self! Thus Haddock (121):

For the will is the self,
And the self is a breath
Of the Infinite Breather outgoing.
On the day when the will
Topples down to its death
Comes disaster surpassing all knowing.

A. QUESTIONS AND ASSIGNMENTS

What is the place of the will among the faculties according to Augustine? According to Hunter and Watson? What is the relation of will to knowing and feeling? I. Analyze will as desire. As deliberation. As choice. As purpose. As action. What is a strong will? II. Classify will as to steps. As to action. As to freedom. III. Discuss the value of the will. What is the best way to train it?

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CHAPTER ELEVEN

CONSCIENCE

I. PSYCHOLOGY AND CONSCIENCE

1. Psychology's Neglect of Conscience

The average psychology pays little, if any, attention to conscience. An examination of 20 secular psychologies (122), selected from a shelf almost at random, revealed the fact that out of 10,070 pages not one page was devoted to the conscience. One of the twenty, "Educational Psychology" (Vol. I. "The Original Nature of Man," p. 202), by E. L. Thorndike, pauses just long enough to say that man does not have religious instinct, nor does he have innate conscience. An examination of 20 psychologies of religion (123) revealed the fact that these books, covering 6,697 pages, had a total of only 34 pages devoted to the conscience, 31 of which appeared in a single work (Stalker's "Christian Psychology"). The word conscience is practically struck out from the vocabulary of psychology. It is seldom mentioned in the class room where psychology is taught, and then often in ridicule. Here is an incident. The teacher chanced to remark something about conscience. "By the way, do you have a conscience?" he inquired of a senior college woman, a daughter of a pastor. "Of course," she replied. "I used to think that we had such a faculty," he continued. "I had a Christian mother, and she told me to obey my conscience and to keep it clean. But later I discovered 'there was no sich critter'. Do you then have a conscience?" "No, I suppose not," she answered.

The good old teaching in the home and the Sunday School, the teaching of the Lutheran catechism and of the Bible, is sensible, sound, scientific psychology. It is not "naive and mythological," as Thilly calls it in his "Introduction to Ethics" (p. 27-28). This teaching holds

that man has a moral faculty, called the conscience, and that it is present at birth. God Himself is an ethical Being and has made man so that he can distinguish between right and wrong. God has revealed His Law, not only on Mount Sinai on two tables of stone, not only in the Bible, but also in man's conscience (Rom. 2:15), hence this Law is the law of nature. Conscience is the voice of God in the human soul. Before the fall of Adam, the conscience had true peace and joy. After the fall, the joy and peace of the conscience have been disturbed. Conscience tells a person what he ought to do and what he ought not to do. The Law written in the conscience convinces a sinner of his sins and of God's wrath against sin. It alarms him and drives him to seek salvation in Christ. It approves of what is right and disapproves of what is wrong in thought and word and deed. Conscience is of vast importance, and any general study of psychology and any specific study of the psychology of religion, ought to pay it a respectable notice.

2. Value of Conscience

Ever since our first parents were placed in the Garden of Eden men have been concerned about what to do and what not to do. They have realized that there are certain modes of life that produce private and public happiness and preserve society, while there are other modes that prevent such happiness and destroy society and its institutions. A good deal of attention is paid to the enforcement of rules of behavior and other obligations and to preventing men from breaking the laws of the land. Every branch of civil government is vitally concerned about law and order. The legislative branch makes laws. The judicial branch interprets the laws and passes sentence on law breakers. The executive branch, with its police and jails, its armies and navies, enforce the laws. It is a fact that men everywhere evaluate certain characters and actions as right, and others as wrong, and that they feel morally bound to do certain things and to leave others undone. They recognize the authority

of certain laws as fundamentally right, with binding force as a consequence. All these questions of right and duty can only be rightly understood when we admit that man was made with moral consciousness—he was given at creation the faculty of conscience.

3. Definitions of Conscience

Conscience is a power, a process, and a product. It is the moral faculty of the soul, the power to know and feel and will in matters of right and duty. Conscience must be distinguished from consciousness (124). Both words came from the same root—conscientia, in Latin, meaning, self-knowledge—, and this Latin word could mean either consciousness or conscience. Now consciousness is an inclusive term, comprising all the powers, as, attention, knowing, feeling, willing, conscience and faith, with all their subdivisions, processes and products. Conscience is then only a small part of consciousness, namely, the awareness of the right and its obligations.

4. Proofs of the Existence of Conscience

The Bible says that there is such a power as conscience and that it is a part of man's hereditary equipment. This ought to settle the question for once and all time, since the Bible is authoritative and infallible in all its utterances. The word conscience does not occur in the Old Testament, and appears only 32 times in the New Testament. Although the word is not found in the Old Testament, the thing itself did exist and is mentioned again and again. When Adam and Eve had sinned, they immediately were seized with shame and fear, and went and hid. Their conscience was accusing them. In Rom. 2:15, Paul, in speaking of the Gentiles, says outright that they have a conscience, and that it is native: "They show the work of the Law written in their hearts, their conscience bearing witness therewith, and their thoughts one with another accusing or excusing them."

The term conscience, or moral faculty, was well known to the ancient Greeks and Romans, and is current among

all nations and tribes. The Greeks pictured accusing conscience very vividly. The guilty souls were entrusted to three Furies (125), whose hair consisted of living snakes, and who drove the culprits with stinging lashes to the underworld abode of the wicked, a place called Tartarus. As the gates of Tartarus turned on their hinges to receive the newcomers, a chorus of cries, groans and imprecations fell upon their ears, mingled with the whistling of whips incessantly plied by the retributive deities.

Or, take an illustration from the American Indian (126): An old Indian asked a white man for some smoking tobacco. The next day he came back and reported that he had found a quarter in the tobacco. "Why didn't you keep the money?" asked the white man. The Indian pointing to his breast, said: "I have a good man and a bad man within. When I found the money, the good man said: 'This is not your money. Return it.' The bad man said: 'You keep it. The white man does not know!' The good man said: 'No, no. You mustn't.' I went to bed, but could not sleep. The men argued all night. Therefore, I have brought the money back to you, and now I am happy again."

It ought not to be necessary to prove that conscience exists and that it is a part of man's birthright, just as truly as knowing, or feeling or willing. The life, language and literature of every people abound in examples of conscience at work. Scarcely anything in the story of mankind has been more conspicuous than the phenomenon of moral distinctions in the world. "Society," says Bowne (127), "in its organized form, is a moral institution, with moral ends." The massive volumes of history testify to the presence of conscience in all the ages of the world and everywhere. Every religious system recognizes it. Ethnologists agree with the missionaries that no people, not even the rudest, are without moral sense and moral codes. No man needs to look far to find conscience at work, for he can find it in himself, deep-seated in his own mystic frame. Conscience is a major faculty and, like knowing, feeling and willing.

present at birth. In the words of C. Lloyd Morgan: "Just as we inherit common sense, an instinctive judgment in intellectual matters, so too do we inherit that instinctive judgment in matters of right and wrong which forms an important element in conscience" (128). The conclusion that conscience is a major faculty and original, is not weakened by diversity and seeming conflict of judgments among men. There is diversity a-plenty in ordinary judgments, too, and they can be explained in a satisfactory manner, but not a bit more so than is the explanation of the diversity in moral judgments. At any rate, in the midst of variety and conflict, the ethical sense persists, conscience is functioning (129).

5. Relation of Conscience to the Other Faculties

Knowing is a major faculty, with many steps. Feeling rises out of knowing, but is different. It is a second major faculty, on a par with knowing. Willing rises out of knowing and feeling, and is also something new and different—a third major faculty, on a par with knowing.

Fig. 41. RELATION OF CONSCIENCE TO KNOWING, FEELING AND WILLING

Conscience rises out of knowing, feeling and willing, and yet is different from all the other faculties. It is a fourth distinct major power.

Each of the major faculties is supreme in its own sphere. No faculty is infallible. Every faculty can be trained for better or worse. The eye, for example, as the organ of sight, is not perfect, may lack training, or be harmfully trained, and yet, in spite of its imperfections, it is supreme among the faculties on the questions of sight. Conscience, like sight, is limited in its native

powers and is often perverted in its development, nevertheless conscience is still the highest voice of the soul in questions of right and duty. No other faculty can take the place of the eye satisfactorily, and no other

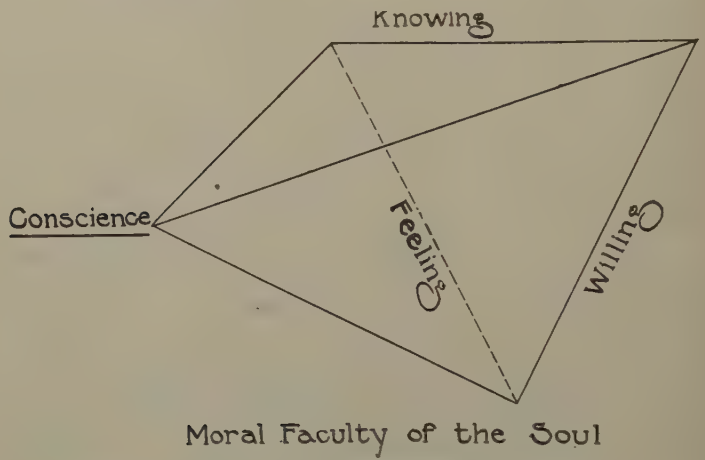


Fig. 42. CONSCIENCE
Conscience has knowing, feeling and willing aspects.

faculty can take the place of conscience. But it must not be understood that sight, or conscience, or any other power of the soul, acts alone. The soul acts always as a unit, but in different directions, as seeing, conscience, and so forth, each of which is influenced by all the other powers and influencing them in turn.

II. ANALYSIS

1. Knowing (130) Aspect

Conscience as knowing includes all the nine steps of knowing described under general consciousness. Conscience differs from general knowing in that it gives the questions before it a moral interpretation.

As to intuition, conscience has, as the Bible says, the Moral Law "written in the heart." The Moral Law is

God's Law, the Ten Commandments, and when the voice of conscience speaks, it seems as if it speaks with ultimate authority—God is speaking to us. This is particularly true where the native conscience has been checked up and kept true by the Word of God, and where it has not been perverted and covered up by the moral standards which men set up.

As to perception, conscience perceives moral distinctions—right or wrong; moral imperatives—duty to do or to let alone; moral consequences—merit and demerit, reward and punishment.

As to memory, in conscience it is hard to forget, and we remember what we do not like to and do not want to remember. And ofttimes, after we have apparently succeeded in forgetting some evil action or intention, it may return to consciousness again and re-open the whole case. Seneca has said that when one hears about crimes committed by others, he remembers his own. It might be said that whenever anything goes wrong, conscience is likely to demand a hearing. In the case of Joseph's brethren, who went to Egypt to buy corn and were treated as spies, their conscience smote them and they blamed their troubles to the fact that they had sold their brother (Gen. 42:21). The memory of their evil deed again troubled them as a worm that never dies, as a fire that can not be quenched (Isa. 66:24). The wicked are like the troubled sea (Isa. 57:20-21).

As to imagination, conscience is very active, tending toward the fantastic and frenzied order, somewhat like the Furies of Greek mythology, just mentioned above. King Herod, for instance, thought that Jesus was John the Baptist arisen from the dead (Luke 9:7).

As to judgment, conscience appears as though another person, with supreme authority, were present among us, passing judgment upon us. This second person is no respecter of persons, makes no distinctions between slaves and kings, demands in clear and cutting tones to be heard, and keeps on accusing until he is listened to or driven away. In case he has been turned out of doors, so to speak, he is sure to return again at some time, and then

he proceeds as before. Thus conscience judges if a man has done evil. But, if a man has done what is right, then conscience is quick and sure to give its approval. It should again be noted that even though conscience is the highest voice within us as to right and duty, it is nevertheless not infallible. It may make mistakes of judgment; it may reverse its judgment. This may be due to the nature of the problem or the kind of training that it has had. But no matter how misled it has been by worldly standards of right, it has a tendency to get back to its original nature, in which the Moral Law is inscribed as the fundamental standard of right and wrong.

As to reason, the conscience has been called the supreme court of the soul. All questions of right and duty are submitted to this court. Here the Law of God is pitted against man's selfish interests and the standards of men. Here the lawyers argue back and forth with consummate skill and untiring energy until a judgment is rendered. In this trial the conscience is the court room, the prisoner, the lawyers, the judge, the jury, and the judgment, all in one.

2. Feeling (131) Aspect

Just as ordinary feeling arises out of any bit of knowledge that comes to consciousness, so also does conscience report its approval or disapproval of every moral issue. The feelings of the ordinary consciousness are, in the main, the most variable feature of general consciousness; the feelings are, on the other hand, the most constant feature of moral consciousness. If a man does right, he is glad; if he does wrong, he is not glad. This is true of the heathen and the Christian alike. Shakespeare truly says:

> *Suspicion always haunts the guilty mind;*
> *The thief doth fear each bush (to be) an officer* (132).

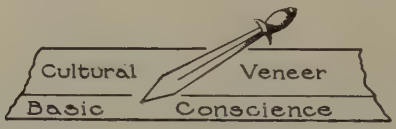
Even the so-called freethinkers, in time of trouble, feel alarmed and call upon the Lord. Björnson, while

skating in Paris, fell through the ice and came near drowning. When he was struggling in the water, he cried out: "Lord, help me now." After he had been rescued, his friends said to him reproachfully: "But, Björnson, you, a freethinker, and calling on the Lord for help?" "What shall a man do," he replied, "when he is drowning?" Besides the feeling of alarm which distinguishes the conscience, it has, as a constant factor, a feeling of moral love, or approval and delight in the right, and moral aversion, or hatred of the wrong. In addition, there is a feeling of obligation or duty before action, and a feeling of approval, satisfaction and joy, after a right action has been performed, and a feeling of disapproval, shame and remorse, after a wrong action has been carried out.

3. Willing (133) Aspect

God's standard of right and wrong is the Moral Law, that is, the Ten Commandments. The world has set up other standards to supplement or supplant this fundamental Law. The Moral Law is perfect and unchangeable, and, if conscience were properly educated, it would always judge and will in harmony with the Moral Law. Human moral standards, based on the customs of a day or place, are imperfect and changeable. Society creates an atmosphere which we are constantly breathing. It pervades business, politics, pleasure, home, school, church, everything. It creates a social conscience, a business conscience, a political conscience, a number of standards for the various relations of life, codes of morals as well as codes of manners. The word moral is derived from the Latin mos (adjective, moralis), which means simply custom, and the average book on moral philosophy, or ethics, is not on what is right and wrong according to the Bible, but on what is right and wrong according to the consensus of opinion and custom, shifting from age to age, and not the same in every land. These human standards may draw much of their inspiration from the Bible, yet they all fall short of the perfection and glory of the Law of God.

Whatever is true and permanent in the laws and moral standards of men must rest on the Moral Law and be measured by it. The Law of God is very simple and plain, yet so inclusive that it covers every thought and desire, every word and deed. As given in the Ten Commandments it contains scarcely 100 words. How imperfect are human laws, how long drawn out, how difficult to interpret. Senator Smoot has called attention to the fact that 62,014 laws and 63,379 court decisions were made in the United States within five years. These filled over a million pages. The Law of God is written in the conscience so that every one that runs may read. Jeremy Taylor, in speaking of the human standards which



Pricking the Conscience

Fig. 43. Hebrews 4:12. "THE WORD OF GOD IS SHARPER THAN ANY TWO-EDGED SWORD . . . ."

are set up from time to time, says: "What God has made plain, men have intricated, and the easy commandment is wrapped up in uneasy learning" (134). This human learning rests upon the native conscience as a sort of veneer; it is a kind of jacket or shell which covers up the native conscience. It is an artificial, a secondary conscience. It hinders the will from acting as it should. For this reason, men of the world, especially men of much learning, are inclined to follow the standards of the world rather than obey God. The veneer of human learning is always a handicap to conscience; it is no doubt even a greater handicap than the veneer acquired by outright disobedience to conscience and living a life of sin. For this reason, in revival meetings and at all Gospel services, for that matter, the preacher seeks by preaching the Law with power to break through the veneer and to brush aside the rubbish of human learning and the hardened

crust that covers up the conscience (135). "The Word of God is sharper than any two-edged sword" (Heb. 4:12). It will be found that publicans and sinners now as in the days when Jesus walked among men, gladly hear Him, whereas scribes and Pharisees oppose Him, and most of the converts come from those whose fundamental sense of right and duty has been re-awakened by the Word of God, as a sword cutting through the veneer. When a man persistently refuses to hear or hearken to the Word of God and the voice of conscience, like Pharaoh (136) he will become still more hardened.

Conscience helps the will to carry out a right decision, and hinders it from carrying out a wrong one. The will in turn helps or hinders the conscience. God offers the conscience supernatural help in His Word. The best training that the conscience can get is a true knowledge of His Word, and a living in accordance with it (Matt. 28:20).

How shall the young secure their hearts,
And keep their lives from sin?
Thy Word the choicest rules imparts
To keep the conscience clean (137).

4. Physical (137) Aspect

The inter-relation between body and soul is demonstrated also in the workings of the conscience. Among the well-known, though not infallible, signs of a troubled conscience are blushing, hesitation, confusion and trembling. In the sweet calm or the haunted look of the face may be read, as a rule, the working of a good or an evil conscience.

III. CLASSIFICATION

When classified as to the time of its activities, conscience is either antecedent or subsequent. The antecedent conscience goes before the performance, the subsequent goes after.

When classified as to quality, conscience is said to be good or bad, pure or defiled, strong or weak, tender or hardened, scrupulous or careless, etc.

When classified as to unit, conscience is either individual or collective. The individual conscience is the conscience of a single individual; the collective conscience is the conscience of a group of individuals, as, a nation, people, sect, church.

When classified as to standards, conscience is either absolute or relative. The standards of God are absolute; those of men are relative.

When classified as to contents, conscience is either basic or veneer. The Moral Law is basic; human standards are veneer.

When classified as to training, conscience is either natural or supernatural, secular or Christian. The natural training is the education that the world gives in the moral standards of the world. The supernatural training is the education which the Bible gives about God and His will, supplementing the knowledge which the conscience has from the very start. The secular training is identical with the natural; the Christian training corresponds to instruction in the Bible, the revealed Word of God.

IV. VALUE

Conscience is valuable in itself and reacts upon knowing, feeling, willing and faith, to their advantage. A few testimonials to the value of conscience, drawn from proverbs, poetry, philosophy and theology, are herewith given, together with a pedagogical application (138).

1. Tributes from Proverbs

Latin: "A clear conscience is a wall of brass."

Italian: "Conscience is as good as a thousand witnesses."

French: "A clear conscience is a good fellow."

English: "You can not purchase a good conscience."

German: "A bad conscience flies from the light as the Devil from the cross."

Danish: "An evil deed has a witness in the bosom."

Russian: "A good conscience is God's eye."

2. Tributes from Poetry

From Tennyson's "Sea Dreams," on a bad conscience:

He who wrongs his friend
Wrongs himself the more; and ever bears about
A silent court of justice in his breast,
Himself the judge and jury, and himself
The prisoner and the bar, ever condemned;
And that drags down his life.

From Wordsworth's "Ode to Duty," on a good conscience:

Stern Daughter of the Voice of God!
Stern Lawgiver! Yet thou dost wear
The Godhead's most benignant grace;
Nor know we anything so fair
As is the smile upon thy face:
Flowers laugh before thee in their beds
And fragrance in thy footing treads.

3. Tributes from Philosophy

Cicero (106-43) held that the power of conscience was great in two directions—those who have done evil dread the threatening judgment; those who have done no evil have nothing to fear. Cudworth (1617-1688) held that the conscience was innate reason. Calderwood (1831-1897) held that it was a real, direct consciousness of God and His will. Sidgwick calls the conscience an advocate; Martineau, a judge; Kant, a legislator. Kant (1724-1804) says:

Two things I contemplate with ceaseless awe:
The stars of heaven and man's sense of Law (139).

4. Tributes from Theology

Luther (1483-1546) likens the conscience to barking hellhounds; Arndt (1555-1621), to a treasure hid in a field, or a divine light in the soul; Krummacher (1774-1837), to a raging sea; McCosh (1811-1894), to a strik-

ing clock. The conscience clock needs to be regulated by the Word of God. Thomas Baird, in his book "Conscience," describes a number of types of conscience mentioned in the Bible—the natural conscience, a defiled conscience, an evil conscience, a convicting, a purged, a pacified, a good, an answering, a pure, a witnessing, a void-of-offence, an emboldened, a wounded, a weak, a seared, and an abandoned conscience—16 types in all. He calls the conscience God's spy, God's link, God's watchdog, God's bloodhound, God's window, God's protest, God's lash and God's sword. Graebner says in his "Doctrinal Theology" (86): "The natural Moral Law, which is binding upon all men and was originally inscribed in the human heart, was by the fall of our first ancestors obscured, but not entirely effaced. Being transmitted from generation to generation as an innate inheritance, it is still sufficient to convince man of his sinfulness, especially as the human conscience, though also impaired and more or less perverted and benumbed by sin, is still active in the human heart, bearing witness to the Law and its stringency, to man's responsibility for his acts, and to the sinner's just condemnation according to the judgment of an omniscient and almighty God."

5. A Pedagogical Application

Give the original, basic conscience a chance. Let it be trained in the light of God's Word rather than according to human standards. It is commonly accepted that instinct, intelligence and intuition, are a part of man's native equipment, and they form the basis for his later training and his activities throughout life. Instincts can be perverted or inhibited; intelligence can be abused or neglected; intuitions can be disregarded or denied. In like manner the native sense of right in harmony with God's will can be perverted, inhibited, abused, neglected, disregarded, denied. Or, it can be educated to be true to its highest purpose, and make a man a saint instead of a sinner.

In knowing himself, a man should not omit to know

his conscience, both basic and veneer. Even though he is not a man of the world, he lives in the world, and is influenced by the world. He should therefore know that the world's moral standards are relative and imperfect, and have to be buttressed by the fears, foibles, faiths and philosophies of men. For example, the world conscience sees no particular wrong in idolatry, cursing and swearing, profaning the Sabbath and despising God's Word. It tolerates disobedience to parents, war, divorce, dishonesty, lying, coveting. "One murder makes a villain: millions, a hero." The veneer conscience approves of the worship of money, tolerates a thousand tricks of trade, with insincerity and injustice in every direction. Almost every political election is an orgy of furious denunciation and wholesale slander. It is now, as in the days of the prophets and the apostles, hostile to reform, and, if it attempts reforms, as it does quite frequently, it denounces one or two flagrant vices and then lays off, calling it a day's work. There is a blind spot in the human eye, and the veneer conscience, even at its best, has its blind spot. Therefore whole fields of iniquity, vast domains of moral activity, escape its notice. Truly, one can say in the words of the liturgy: "We have done those things we ought not to have done; we have left undone those things we ought to have done." This confession of sins of commission and omission are mainly empty mouthings from the lips of those who go solely or chiefly by their veneer conscience. It is only when the basic conscience is permitted to speak that a man is convicted of sin and makes a good confession. Every person should get the right kind of moral education, so that the veneer conscience shall be in perfect harmony with the basic conscience, a help and not a hindrance. The Word of God, taught in its truth and purity, is the only right kind of moral education (140).

A. QUESTIONS AND ASSIGNMENTS

I. Illustrate how psychology neglects the topic Conscience. Explain the importance of conscience. Define conscience as a power. A process. A product. Give proofs of the existence of conscience. Show its relation to the other major faculties. Explain its supremacy. Its fallibility. II. Analyze conscience as knowledge. As feeling. As willing. Describe its physical manifestations. III. Classify conscience as to the time of its activities. As to quality. As to units. As to standards. As to training. Describe in detail the basic conscience. The veneer conscience. The natural acquired conscience. The supernatural acquired conscience. IV. Quote some proverbs testifying to the value of conscience. Some poems. Some statements from philosophers. From theologians. Give a pedagogical application.

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CHAPTER TWELVE

FAITH

I. PSYCHOLOGY AND FAITH

1. Psychology's Neglect of Faith

The average psychology does not mention faith as one of the major faculties of the soul; in fact, it seldom, if ever, mentions faith at all. In only six of the twenty general psychologies referred to in Chapter Ten, faith, or belief, is mentioned, and only eight pages out of 10,070 are devoted to the topic. In every case faith is explained as a secondary, not an original, power. In the twenty religious psychologies mentioned in Chapter Ten, faith, or belief, is discussed in eleven, 156 out of 6,697 pages being devoted to it. Even in these books, faith is considered only as a minor power, and in these forty books averaging 419 pages to the book, an average of only four pages is assigned to faith, or about one per cent of the space.

2. Value of Faith

Faith is not peculiar to religion. The common duties of life rest largely on faith. The greatest undertakings in peace and war are made in its name. As Virgil said: "For they conquer who believe they can" (141). The merchant has faith in his market, and loads his shelves with goods. The farmer has faith in his soil and his seed; he plows and plants and reaps a bountiful harvest. The banker is trusted by his depositors and loans out their money on credit. The pastor has faith in the power of the Word, and his hearers accept the Gospel as a power unto salvation for all that believe. Fulton had faith in the power of steam, and sailed his boat up the Hudson. Columbus had faith in his theory that the world is round, and found his way across untried waters. All science

as all religion, rests on faith. No man has had the time, nor the capacity, to get first hand knowledge and proof about everything, not even in the smallest field of knowledge.

Leonidas fought in human faith, as Joshua
in divine.
Xenophon trusted to his skill; and Matta-
thias, to his cause.
Faith in his reason made Socrates sublime,
As faith in his science, Galileo.

Hebrews 11 is an inspiring catalog of some of the Biblical heroes and heroines of faith—Abel, Enoch, Noah, Abraham, Isaac, Jacob, Joseph, Moses, Joshua, Rahab, and many others, making a cloud of witnesses to the value of faith. History, too, likes to pause by the side of her men of faith and to tell the world of mighty deeds performed through the power of faith. Thus we pause to learn of Luther, the man of childlike and manly faith in the Bible and its message of justification by faith. Browning says:

Why, to be Luther—that's a life to lead * * *
He comes, reclaims God's earth for God,
Sets up God's rule again by simple means,
Reopens a shut book, and all is done (142).

3. Definitions of Faith

Faith is a power, a process and a product. It is the power to believe, the process of believing, the product of believing. In its widest sense, it is a belief in what another states, simply on the ground of his truthfulness. It is a dependence on a person or thing as trustworthy. It is "an assurance of things hoped for, a conviction of things not seen" (Heb. 11:1). Faith is within the reach of the lowest intelligence and makes an appeal to the keenest intellects. The vine clinging to the tree is a type of it. The infant in mother's arms is an example of it.

Faith, in a narrower sense, is the religious faculty of the soul. It is the power to believe in a Higher Being,

and to fear, love, trust, adore, reverence and worship Him. Of religious faith there are two chief types—the natural and the supernatural.

Natural religious faith is the power to worship a Higher Being. This power is native to man, possessed by all men. No people has ever existed without some form of religion. Religion is a universal phenomenon in the human race, and is one of the most distinguishing features making man a class by himself, entirely different from the brutes and plant creation. "You may see states," says Plutarch, "without walls, without laws, without coins, without writing; but a people without a god, without prayers, without religious exercises and sacrifices, has no man seen." Cicero says: "There never was any nation so barbarous, not any people in the world so savage, as to be without some notion of gods." Diversity of beliefs does not disprove the fact that man is endowed with religious powers, for the reason that all systems of religion have all the psychological elements of religion—recognition of God or gods (knowing), homage of some kind (feeling), worship (willing), and moral standards (conscience). The existence of atheism (denial of the existence of God) and agnosticism (profession of inability to know God) does not disprove it, because these forms of unbelief have never risen from the common people. Such forms of unbelief always come from some thinker of considerable stature, as, Democritus, Lucretius, Haeckel, Spencer, Ingersoll, men who are the exceptional by-products of highly artificial civilizations. They do not represent normal human nature. All people are normally religious, and all people can know, as Paul says in Rom. 1, much about God. David sings:

> *The heavens declare the glory of God;*
> *And the firmament showeth His handywork* (*Ps.* 19:1).

And David says again: "The fool saith in his heart, 'There is no God'" (Ps. 14:1). Every human being, then, even in his natural corrupt state, has not only the faculties of knowing, feeling and willing, but also a

moral faculty (conscience), and a religious faculty (faith).

The natural man is corrupt on account of having inherited a sinful nature. When Adam sinned he lost the image of God and passed sin and death on to his posterity. His whole being was poisoned with sin, but not converted into sin; that is, his understanding became darkened, his body became an instrument of evil passions, his will became inclined to all that is evil and powerless for all that is good. His conscience lost its peace and joy. Yet the very fact that Adam and all his descendants after him never found any real pleasure in sin, made him and mankind everywhere seek to ward off merited punishment and look for salvation. In addition to the troubled conscience, which makes him dissatisfied with his sinful lot, man retained after the fall a certain intuitive knowledge that there is a Power over all creation, and a certain longing after communion with this Higher Being. This natural religious faculty, like the other powers of the soul, is of high value, even though it is corrupt and can not save a man.

But man is capable of being saved. He can get a saving faith, a living faith in the Triune God, Father, Son and Holy Ghost. This faith is a supernatural faith. It is given him by God Himself. God, in the eternal counsel of His wisdom and grace, made provision before the foundation of the world for man's salvation. In the fulness of time Jesus came to save. He saves those who believe on Him as their Savior from sin, and death and the power of the Devil. He sends the Holy Ghost, Who by supernatural means regenerates man and creates a supernatural faith, which partly restores the divine image in man in this life, and fully restores it in the life beyond. Regeneration is a fact, and living witnesses rise up everywhere to testify to the fact that they have been saved as a brand out of the fire (Zech. 3:2). Man is brought out of a state of corruption, with prospects of dishonor and misery here and hereafter, and brought into a state of grace, with prospects of happiness and glory

here and hereafter. This is, in brief, the plan of redemption through faith.

This faith is supernatural faith, or Christian faith, faith in Christ. It is a firm conviction of the truth of what God has revealed in the Bible. It is a dependence on God and His Word as trustworthy. It is a loving, hearty reliance upon God and His promises of salvation through Christ. It is a new attitude toward the Law of God, the attitude of the son, not of the slave. While natural religious faith is common to all men, even agnostics and atheists, supernatural faith is possessed only by those in whom through the Means of Grace God has wrought it (1 Cor. 12:3). "I believe that I can not by my own reason or strength believe in Jesus Christ, my Lord, or come to Him; but the Holy Ghost has called me by the Gospel, enlightened me by His gifts . . . . . This is most certainly true" (143).

4. Proofs of Existence of Faith

Proofs for the existence of faith are just as abundant, reasonable and convincing as are the proofs for the existence of God (144). Religion is co-extensive with human history. Adam and Eve talked with God in the Garden. Cain and Abel built altars and sacrificed to Him. Society everywhere has recognized religion as a fundamental need. On the American dollar is the imprint: "In God we trust." The best literature of the world is permeated with a religious flavor. The most attractive characters in the Bible and secular history are those of men and women who walked by faith and not by sight. Scientists do not hesitate to declare that the facts of religion are as real as physical facts, and that men of Christian faith are today as of old the real heroes, the light of the world and the salt of the earth. Science itself is founded upon unproved first truths, hypotheses or assumptions. Thus Huxley, the scientist, says: "The ground of every one of our actions, and the validity of all our reasoning rest upon the great act of faith" (145). Faith, then, is at work everywhere in the lives of men, secular faith and

religious faith both, natural faith and supernatural faith. Men can not rest in the agnostic attitude. They are so created that they have natural faith, whether they want to or not, and it is God's gracious will that they shall have supernatural faith (146).

5. Relation of Faith to the Other Faculties

Knowing is a major faculty, with many manifestations. Feeling rises partly out of knowing, has many stages, and is different from knowing, a major faculty on a par with knowing. A third major power is willing,

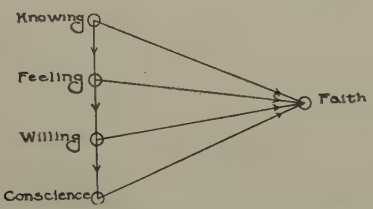

Fig. 44. RELATION OF FAITH TO KNOWING, FEELING, WILLING AND CONSCIENCE

arising out of knowing and feeling, but distinct from them. A fourth major power is conscience, partaking of the nature of knowing, feeling and willing, and yet adding something new and individual. Faith is a fifth major faculty. Spencer, the agnostic, freely admits that the religious faculty is "as normal as any other faculty" (147). Faith has a knowing aspect, a feeling aspect, a willing aspect, and a conscience aspect, besides a physical aspect. It is influenced by all the other faculties, and influences them in turn.

II. ANALYSIS

1. Knowing Aspect

In natural faith there is an innate knowledge that there is a God. Many scholars say that man has no innate knowledge of God. They hold that all religious

ideas, including that of God, have grown by a process of natural evolution, from the rudest beginnings up to the present complex religious systems, at the head of which stands Christianity (148). The Bible account of the "origin" of God and religion is quite different from that of the so-called "Higher Criticism" and "scientific religion." God was before the beginning of creation (Gen. 1:1; Ps. 90:2; John 1:1; etc.). Man was created with a religious faculty. Our first parents knew the Creator to be true God. After sin came into the world, this knowledge became more and more dimmed. Men had, however, in their conscience a witness that there is a God, and they felt that He ought to be worshipped as well as obeyed. They attempted, therefore, like Cain and Abel, to worship Him. As people increased in numbers and spread out over the earth, their traditional knowledge of God became fainter, and they began to substitute the things He had created as objects of worship instead of Him. The sun, the moon, the stars, the planets, the wind and storm, the mountains and valleys, the things in nature and the forces thereof, all became gods of one grade or another (149). These gods were to a large extent caricatures of men, emphasizing this trait or that. As time went on it was found instructive and convenient to make images and idols of these many deities, to have places of worship, forms of services, an appointed priesthood and a regular tax for their support. Thus arose the worship of many gods instead of the One True God. Polytheism took the place of monotheism. Instead of being an evolution from crude beginnings to higher levels, the history and the psychology of religion show that, wherever man has been left to himself, his religion as well as his morals have degenerated. Even among the heathen, reformers have sprung up to check the downward trend and to place religion and morals on a higher plane (150). Devolution instead of evolution is the proper description of the natural tendency in man in religious matters. There is, nevertheless, even in the most polytheistic and idolatrous religions, considerable knowledge about the living God. Neumann tells about a German

philosopher by the name of Sentennis who tried to prove to himself that man did not have religious intuition. He had a son whom he tried to bring up in utter ignorance of God. Up to the age of ten the boy had not seen a person except his father and had never heard the name of God or read a word about Him. One day Sentennis, Sr., discovered that the boy was in the habit of getting up early in the morning and going back of a shed to worship the rising sun. When the father came upon the boy doing this, the boy was fearful that he had done something wrong. When the father tried to show him that the sun was not God, the boy was filled with immeasurable grief. Sentennis was now convinced that his experiment had failed. He therefore admitted to his son that there is an almighty God, and that He has made the sun and the rest of creation.

This intuitive knowledge is important (151). It is deep-seated, like piles driven deep below the surface, often not considered by those who use the structure. It makes all the nations religious, even though it is not saving. Saving knowledge and faith come from the Word of God. The Word creates in those who do not persistently oppose its influence a supernatural faith. It makes one know, not only that there is a God, but that this God is the triune God, Father, Son and Holy Ghost, the Three in One, revealed unto man as Creator, Redeemer and Sanctifier. A person with natural faith can learn a great many facts about the true God and even accept them as historically true, without getting supernatural faith. A person with supernatural faith accepts these facts as historically true and scientifically correct, recognizes his own sinful condition, lays hold on Jesus as his only Savior from sin and its consequences. In the man of natural faith, no matter what his scholarship is, the soul remains impenitent, and does not accept Christ's atonement. In the man of supernatural faith, be that faith ever so weak, the soul is penitent and knows its lost condition without Christ. All the elements of knowledge enter into faith —intuition, sensation, perception, association, memory, imagination, perception, judging, reasoning. It is only

through the gracious work of the Holy Ghost that supernatural faith is created and nourished. He ordinarily uses the Word and the Sacraments to accomplish His work.

2. Feeling Aspect

The knowing aspect of faith is different from ordinary knowing. It is a conviction of things not seen, especially with regard to God. The feeling aspect of faith is also different from ordinary feelings (152). In the natural religious faith there is a feeling of hostility to God, "because the carnal mind is enmity against God" (Rom. 8:7). The natural man is afraid of God, has the fear of the slave or the criminal. In the supernatural faith there is a feeling of love to God, "because He first loved us" (1 John 4:19). The Christian fears God with a child-like fear, saying with Joseph: "How can I do this great wickedness, and sin against God?" (Gen. 39:9). Christian faith awakens and includes in itself all the finer feelings. In particular, it consists of a loving confidence in Christ. We resign ourselves to Him, expect all good from Him, place all our affairs in His hand, in short, we trust in Him above all things.

3. Willing Aspect

The willing aspect of faith, too, is different from that of ordinary willing (153). In the Christian faith, there is a sincere desire to be free from sin and a holy longing to be like Jesus.

I long to be like Jesus,
Meek, loving, lowly, mild (154).

There is a keen and fond meditation as to the merits of Christ.

Jesus, Thy blood and righteousness
My beauty are, my glorious dress (155).

There is a definite choice of Christ as the Savior.

O happy day, that stays my choice
On Thee, my Savior and my God (156).

There is an earnest resolve to win the crown of life.

The race then run,
The combat done,
Your crown of glory will be won (157).

And, finally, there is an act of complete and unconditional surrender to Him.

See, I pledge myself to Jesus,
What He wills alone to will (158).

4. Conscience Aspect

Both conscience and faith have a natural and a supernatural aspect. The natural conscience is the native ability to distinguish between moral right and wrong. The

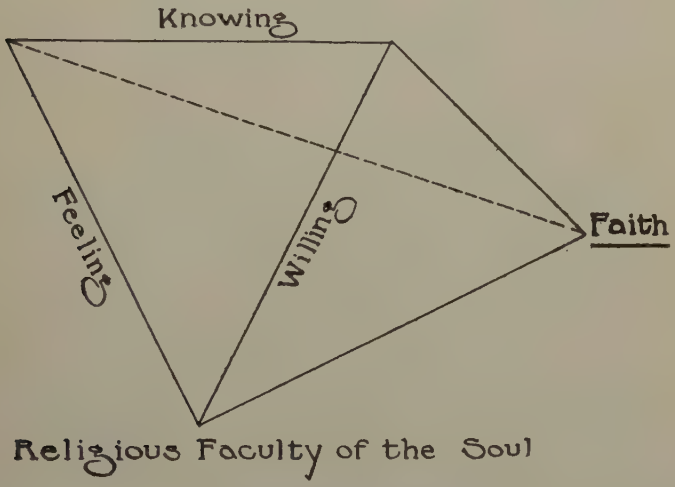

Fig. 45: FAITH
Faith has knowing, feeling and willing aspects

supernatural conscience is the natural conscience enlightened by God's Word. Natural faith is the native ability to believe that there is a God. Supernatural faith is the ability to believe in the true God, an ability bestowed

by God through His Word and Sacraments. Natural faith accepts the demands of conscience with grumblings, with fear and trembling, without true repentance. Supernatural faith bows in humility to the stern voice of conscience, flees to the Savior for pardon and peace. "The Law is become a schoolmaster to bring us unto Christ, that we might be justified by faith" (Gal. 3:24).

5. Physical Aspect

Faith has a wide range of influence upon the body, and the state of the body may influence one's faith. If you suggest to a well man that he is sick, and he believes you, your words will probably make him sick. If you suggest to a sick man that he looks well, and he believes you, he will probably feel better and may even get well. This faith is simply natural faith. All good physicians make use of this principle. It is the chief instrument of the mental healers and psycho-therapists (159). If natural faith can have a pronounced beneficial influence upon the body, it is reasonable to suppose that supernatural faith also can have. James says that "the prayer of faith shall save the sick, and the Lord shall raise him up" (Jas. 5:15). Luther's prayer of faith once saved the dying Melanchthon. Jesus said to the woman with an issue of blood whom He healed: "Daughter, thy faith hath made thee whole" (Mark 5:34).

III. CLASSIFICATION

There are many kinds and shades of faith. The following are typical.

1. As to Source

As to source, faith is natural and supernatural. The natural faith is possessed by all men, but it is not saving, and will not bring a man to Heaven. The supernatural faith is saving. It is generated by the Holy Ghost through the Word of God and the Sacraments.

2. As to Age of Believer

It is customary to distinguish between the faith of infants and adults. The faith of infants and adults may be either natural or supernatural. The infant's faith is not so much a knowledge of what is to be believed as a simple trust and confidence. As the infant can breathe without understanding that he breathes or what and why, so he can believe without understanding the elements of faith. The adult's faith is more intellectual. The supernatural faith of infants is generated by Baptism, and developed to consciousness by the Word. The supernatural faith of adults is generated by the Word, and confirmed by Baptism.

3. As to Scope

As to scope, faith is either subjective or objective. Subjective faith is the faith that believes. Objective faith is that which is believed, and this is called creed.

4. As to Quantity

As to quantity, faith is little or great. Little faith refers either to the fact that the knowledge of Christ is small, or that the assent is weak and the confidence is wavering. It is sometimes called a weak or infirm faith. Great faith is the opposite of little or weak. It is called strong or firm faith. A weak faith in Christ, if true and sincere, is also saving. A drop of water is as truly water as the ocean.

5. As to Quality

As to quality, faith is either dead or living. A dead faith is the false and vain faith of the impenitent who remains in his sins. A living faith is the true and justifying faith of the penitent soul that lays hold on Christ as the only Savior from sin. A dead faith never saves; a living faith always saves.

6. As to Denomination

As to denomination, faith is either Christian or non-Christian. A Christian faith centers about Christ and

His work of redemption. A non-Christian faith either does not know about Christ, or, while knowing about Him, does not accept Him. There are many subclasses, or types, of Christian, as also of non-Christian, faith. According to Scripture there is salvation only in Christ (Acts 4:12).

IV. VALUE

The value of faith in general has already been briefly noticed. The value of Christian faith in particular is an inexhaustible theme (160). Much of the best progress of the world can be placed to its credit. The sins of Christendom are due to a lack of it. Testimonials as to the value of faith are heard on every side—in proverbs, poetry, philosophy, theology, history; in the home, school, church, business, society. In the Bible, hymnals, dogmatic and devotional books, and in sermons, the words faith and belief occur from ten to 100 times as frequently as the word conscience. The chief value of faith is salvation (Mark 16:16). The following remarks are limited to the influence of faith on knowing, feeling, willing and conscience.

1. Influence on Knowing

Christian faith gives a new intellectual outlook. Christian thought is deep, and broad, and high, and massive (Isa. 55:8; Rom. 11:38). The best that is true, and beautiful, and good, is contained in the Bible, and this inspires the believer to strive for the best in the world (Phil. 4:8). Science and art have both been promoted by Christian faith. Morals and religion are brought to their highest levels of purity and efficiency by Christian faith. Christ Himself stands supreme as the Teacher of the world, the most unique personality in the story of men. We may well confess with the centurion: "Truly this was the Son of God" (Matt. 27:54). He was the Day Star (2 Pet. 1:19); the Light of the World (John 8:12); the Way, the Truth and the Life (John 14:6); He makes men free indeed (John 8:36).

2. Influence on Feeling

Christian faith gives a new emotional trend to life. Love takes the place of hate. Trust supplants fear. Hope replaces despair. Christian faith hears that all men are invited to become heirs of the same hope and sees that all men are equal before God. Christian faith feels, therefore, that there should be equality among men and that there should be a new social order such as heathendom had never dreamed of and never could understand (Gal. 3:28). Christian faith, true to this vision, emancipated women, freed the slaves, advocated the right of every people and every individual to liberty and self-government. Its ideal is social, political, industrial, economic and religious freedom. Christ became poor that we might become rich (2 Cor. 8:9). Himself a carpenter, He hallowed toil (Mark 9:35), and men of faith are brave burden bearers, not burdens to their fellowmen.

3. Influence on Willing

Christian faith gives a new volitional trend to life. Men of faith desire to see Jesus, to walk with Him, and do His work while it is day. They choose Him. Like Moses, they choose rather to suffer affliction with the people of God than to enjoy the pleasures of sin for a season (Heb. 11:25). They go out with the Glad Tidings of salvation, making Christ known by word and deed. They open men's eyes, turn them from darkness to light, and from the power of Satan unto God (Acts 26:18). They help the orphan and the widow, the sick and the sorrowful, the down trodden and the fallen. They fill the land with thanksgiving and praise, with gladness and song, with peace and prosperity.

4. Influence on Conscience

Christian faith gives a new trend to moral life. Conscience convinces man that he is a sinner, a lost and condemned creature. The Law of God enlightens the conscience on this score, and, as stated, "is become a school-

master to bring us unto Christ, that we might be justified by faith" (Gal. 3:24). Faith, accepting the Gospel, urges the lost sinner to seek refuge in the wounds of Christ.

Just as I am, without one plea,
But that Thy blood was shed for me (161).

Faith helps the conscience be true to the Moral Law and more tender and responsive. The ethical standard of faith is, not the letter of the Law only, but also, and especially, the spirit. Faith gives the will a new longing and power to reach up to this high standard. It gives the conscience a new light, a new peace and joy. It charges the atmosphere with religious ideals and sentiments, with high moral standards and ambitions. It induces men to renounce the Devil and all his works and all his ways, to stand up for Jesus, and to make the world a place where right and righteousness can dwell. The reason why there is so much evil in the world is, not that Christianity does not have a high ideal or the means to reach it. It can reach the ideal by Christian faith. The reason for the evil in the world is, that so many people who bask in the light of Christianity will not accept the Christian faith, which is the power that overcometh the world (1 John 5:4). The natural tendency of men is toward corruption. This is the clear teaching of Scripture, history and experience, the doctrine of evolution to the contrary notwithstanding. The only saving factor is Christian faith. Salvation is the crowning result of Christian faith (John 3:16).

5. A Pedagogical Application

If we only would believe — — —. God wants every one to believe and through the Means of Grace gives every one power to believe who does not oppose Him. Infants become believers in Baptism, because they do not withstand Him. Adults may become believers whenever He speaks to them. A certain factory foreman was awakened to see his lost condition, but he had not yet

accepted the Gospel of peace. His master, who was a Christian, requested him to call at 6 o'clock on a certain day. The foreman came on the minute specified. "I see you believe me," said the superior. The man assented. "Well, see here is another letter which One still more in earnest and far more to be trusted sends to you," said the other, handing him a slip of paper on which were written a few texts from Scripture. He took the paper and read: "Come unto Me, all ye that labor and are heavy laden, and I will give you rest" (Matt. 11:28). His eyes filled with tears, as he said: "I see it now. I am to believe that in the same way that I believed your letter" (162). Such is faith. It accepts the Word of God as trustworthy.

Our faith increase, our minds enlight,
That we may know Thy name aright (163).

A. QUESTIONS AND ASSIGNMENTS

I. What space does psychology devote to faith? Illustrate the importance of faith in the lives of men. Define faith as a power. A process. A product. What is natural faith? Natural religious faith? Supernatural religious faith? Illustrate the universal appearance of religion. Show that the diversity of beliefs does not disprove the contention that man has a religious faculty. Give proofs of the existence of God. Of the existence of faith. What is the relation between faith and the other faculties of the soul? II. Discuss the knowing aspect of faith The feeling aspect. The willing aspect. The conscience aspect. The physical aspect. Illustrate each. III. Give a classification of faith as to source. As to age of believer. As to scope. As to point of view. What is creed? Classify faith as to quantity. As to quality. As to denomination. Does it make any difference as to what denomination or church you belong to? If so, what? IV. Illustrate the value of faith in general. Its bearing on knowledge. On the feelings. On the will. On morality. On salvation.

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CHAPTER THIRTEEN

NATURAL AND RENEWED STATES

I. THE NATURAL STATE

The first natural state of man was that of innocence. Then man fell; and after his fall, his natural state is one of corruption.

1. The State of Innocence

Man was created in the image of God (Gen. 1:37). The image of God consisted in true understanding and wisdom, holy desires and longings, freedom of will to do what is good and refrain from what is evil, and peace and joy of conscience. Man was righteous and holy, free from sin and sorrow, sickness and death. The perfection and purity did not exclude the possibility of sinning. In the Heavenly Paradise, which is man's goal, we shall have no inclination to sin. The impossibility of man to commit sin was the great end, not the beginning, of the development which God seems to have planned. Adam was given a chance to develop his powers. He was put into the Garden of Eden, the earthly Paradise, to dress it and keep it. He was asked to give a name to every living creature. Eve was made and brought to him for approval. But still a stronger test of self-determination was needed, and it was furnished. He was forbidden to eat of the tree of knowledge. It is called the tree of knowledge because, by obedience man should know how good it is to obey God, and by disobedience, how evil it is to disobey Him. It is interesting, from a psychological as well as from a theological point of view, to speculate on what would have happened if Adam and Eve had stood the test. We refrain, however, from this speculation, and proceed to tell about the fall.

2. The Fall

(1) *The Origin of Sin*

The account of the fall (Gen. 3) is most certainly true; it is to be taken as literal history, and not as a myth or an allegory, as some would have it. It must be told in order to explain the origin and nature of man's corruption from a psychological point of view.

Sin originated in the disobedience of our first parents. Adam and Eve ate of the forbidden fruit, being tempted to do so by an outside force, Satan, the adversary of God, in the form of a serpent. The serpent deceived Eve; she persuaded Adam. Adam sinned of his own choice, and with open eyes. And so, "by one man sin entered into the world, and death by sin; and so death passed upon all men, for that all have sinned" (Rom. 5:12).

In Adam's fall
We sinned all.

Sin, then, goes back to Adam, on account of which our sinful nature is called the Old Adam. It goes back to Satan, but not to God (Gen. 1:31; Isa. 6:3; Ps. 145:17; 2 Pet. 2:4; Jude 6).

The tempter turned to the woman. He sought to becloud her understanding, to arouse her feelings, to weaken her will, to set up a new moral standard, to shake her faith in God's justice. First, he awakened doubts respecting the Word of God. Then, he charged God with envy and falsehood. Next, he told a direct lie, mingled with elements of truth, in the promise: "Your eyes shall be opened." And, finally, he presented the fruit itself, which made a three-fold appeal to the feelings of the woman: To the lust of the flesh—"it was good for food"; to the lust of the eyes—"it was pleasant to the eyes"; and to the pride of life—"it would make her wise" (Gen. 3:6; 1 John 2:6).

(2) *The Essence of Sin*

Sin plays such havoc in the lives of men that its essence should be examined. The tree of knowledge was

not sinful in itself. The act of eating as such was not sinful. What made the act sinful was, that it was forbidden. There was no sin in being tempted, but in yielding to temptation. Yielding is sin. Luther said that he could not help that the birds fly above his head, but he could prevent them from making nests in his hair. Adam and Eve were not compelled to sin. They were endowed with power to resist and overcome temptation, but they fell through unbelief, disobedience, pride and selfishness, when tempted. Temptation was a necessary factor in the development of man, but sin was not. In its essence sin is selfishness and disobedience against God.

(3) *The Forms of Sin*

When Adam fell, his nature became corrupt, and he has transmitted this corrupt nature to his descendants. In Adam, the person made the nature sinful; in his posterity, the nature makes the person sinful. There are two main classes of sin—original and actual. Original sin is the inborn depravity, deep corruption and evil inclination of our nature. Actual sin comprises all the evil deeds and words, thoughts, feelings, desires, etc., which come from original sin. Actual sins are sins of omission as well as sins of commission. If we accept this Biblical teaching, we must reject the current theory that the sinful nature in us has been derived from our "animal ancestors." Quiros, for example, informs us that thanks to the theory of evolution the doctrine of hereditary transmission of sin has radically changed: "Sin is not from Adam and Eve to be sure. The first couple stained by one original sin has been replaced by the primitive man scarcely freed from the animality of the anthropoid" (164). M. L. Burton says that Rom. 3:12 becomes "meaningless in the light of evolutionary thought." "After countless generations of mere brute existence, man has emerged with the burden of a sensuous nature" (165). The deep depravity of the human soul, according to sound psychology and Biblical theology, does not come from an ape, but from Adam

(4) *The Degrees of Sin*

There are really only two degrees of offenses— pardonable and unpardonable. Every sin, not pardoned, has a death sentence. The Lord does not want anyone to perish (Ezek. 18:32; 2 Pet. 3:9); He wants to save all (Mark 16:15; 1 Tim. 2:4). If He can not pardon a sin, it is because some people, like Pharaoh and Ananias, persist in hardening their hearts and in sinning willingly against the Holy Ghost; they obstinately and finally reject the Means of Salvation, and deprive themselves of the pardon that God freely gives to every repentant sinner for the sake of Christ.

(5) *The Punishment for Sin*

God had warned Adam that if he sinned, he would die (Gen. 2:17). "The wages of sin is death" (Rom. 6:23). Adam sinned, and death came at once into the world—spiritual, temporal and eternal death. Man lost the image of God at once, was expelled from Eden, and was separated from the fellowship with God. This was spiritual death, followed in due time by temporal death, and this again by eternal death, the final punishment upon those whose sins were not forgiven in this life.

3. The State of Corruption

(1) *The Deep Depravity*

Man lost the image of God and sonship. Exclusion from Paradise and a corrupt nature came in the train of disobedience. This woful state of corruption was transmitted to us all (Rom. 5:12-21). Children and children's children have inherited from Adam his corrupt nature (Gen. 4:8; 6:5; 8:21; Eph. 2:3). They are flesh born of flesh (John 3:6). They are wholly depraved (Job 14:4; Rom. 3:23; 7:13). They are totally blind of understanding in spiritual things (1 Cor. 2:14; 2 Cor. 3:5; Eph. 4:18; 5:8). They have perverse appetites (Gen. 6:5; Rom. 6:12; Eph. 2:3; 4:22). Their will is opposed to the will of God and only prone to do evil (Ps. 14:3;

Rom. 8:7; Col. 1:21). Their conscience has been impaired, perverted and benumbed by sin and worldly wisdom, without true peace and joy (Gen. 3:10-11; Isa. 57:20-21; Rom. 2:15). They are without power to come to Christ and believe on Him (John 14:6; 1 Cor. 12:3; John 1:12-13; 6:29; Heb. 12:2). In short, all the faculties of the soul are impaired and enslaved in the service of sin (Rom. 7:14, 23-24). And there is no ability in any measure to work their own restoration as children of God and heirs of the eternal Paradise (2 Cor. 3:5; Eph. 2:1, 5). Original sin, or the natural depravity of man, is productive of manifold actual sins (Jer. 17:9; Gal. 5:19-21). These are sins of commission, doing that which God forbids, and sins of omission, not doing what He commands (Jas. 4:17). There are sins of knowledge and of ignorance, enmity and unbelief, voluntary and involuntary. There are internal as well as external sins, for "whosoever hateth his brother is a murderer" (1 John 3:15). All are, then, sinners. All have sinned in Adam, the common parent and representative of the race. "All have sinned, and come short of the glory of God" (Rom. 3:23). "There is none righteous, no, not one (Rom. 3:10). The history of mankind is one long story of corruption, in which the transmission of sin has taken place with special intensity in certain individuals and races, who have therefore specially invited God's just wrath. God could of course have prevented Adam from sinning, but not without changing his nature as a free moral agent. In His wisdom, goodness and justice, God does prevent the conception and execution of many evil designs (Gen. 19:11; 20:6; Num. 22:12; Ps. 33:10; Isa. 37:36). Among the means to curb the evil inclinations and acts of men in their natural depravity, He uses the Moral Law, various institutions, as, marriage and civil government, the laws of nature and temporal death. Nevertheless, the ravages of sin are awful, and the whole race, including the rest of creation, has groaned and travailed in pain until now (Rom. 8:22). This is the psychological situation of man in the state of corruption.

(2) *The Longing for Redemption*

Man in his corrupt state is a lost and condemned creature, justly under God's wrath, and deserving of temporal and eternal punishment. Yet he is capable of being redeemed; and God, out of His boundless wisdom and mercy, has provided the means of saving and restoring him and leading him out of the state of corruption into the state of grace.

When man sinned, he became corrupt. He lost the true knowledge of God, the true fear, love and trust in Him, the true will to do good and shun evil, the true conscience, the true faith, the true fellowship with God, in short, he lost the image of God. Yet he retained something. He retained his body, though it too became corrupt and subject to sickness and death. He retained the soul with its faculties, by which he could still hold dominion over the beasts of the field and the forces of nature, could recognize his lost condition and long for redemption. The conscience of man has never given him peace in his sinful state. The natural faith of man recognizes that there is a God and that He ought to be worshiped. In spite of ignorance of God and doubt, in spite of love for sin and enmity to God, in spite of proneness to will and do what is evil, in spite of a weak natural and a hardened veneer conscience, in spite of absolute inability to believe on God with true confidence and resignation, in spite of all these handicaps, the natural man longs after communion with God. God also longs for this communion and offers supernatural aid, by which man can be renewed and live here in this life in a state of grace, and in the life beyond the grave in a state of glorification. From the view point of psychology, as also of the Bible, this is most certainly true.

II. THE RENEWED STATE

The plan of salvation has been revealed by God in the Bible, His inspired Word. Man could not of himself have imagined or constructed this plan. The promise and plan of redemption had to be revealed. The whole work

of salvation is God's work solely, and the fact that all men are not redeemed is not God's fault, but man's only. The redeemed man secures communion with God, regains his fellowship with Him, enjoys the privileges of sonship, has restored the lost image of God, and strives after godliness in this life, with a sure hope of complete restoration and eternal bliss in the Heavenly Home. "Godliness is profitable for all things, having promise of the life which now is, and of that which is to come" (1 Tim. 4:8). Men who have been renewed are called "twice-born" men, new creatures. "Wherefore if any man is in Christ, he is a new creature: the old things are passed away; behold, they are become new" (2 Cor. 4:17).

1. The Preparation for Redemption

The work of redemption goes back to the establishment of the Kingdom of Heaven on earth, to the work of Christ, yes, even to the council chambers of eternity.

(1) *God's Eternal Purpose*

God from eternity saw the deep misery and need of the human race and determined before the foundation of the world to send His Only Begotten Son as a Savior unto all men (Eph. 1:4; 1 Pet. 1:20).

(2) *The Work of Christ*

This plan determined upon in eternity was executed in time. It was made known to Adam and Eve immediately after the fall, and afterwards time and again proclaimed through the patriarchs and prophets in the Old Testament. The Savior's bitter and bloody death was set forth and typified by many sacrifices of many kinds. The last of the Old Testament prophets was John the Baptist, who was a forerunner to prepare the way of the Lord, and to point to the Lamb of God Which taketh away the sin of the world. About 4,000 years after the fall, when the fulness of time was come, God carried out His eternal purpose. Then God's Eternal Son was con-

ceived by the Holy Spirit and born into this world, without sin, of His mother, the Virgin Mary.

As to His person, the Savior has two natures—a divine and a human. He is true God and true Man. He became true Man so that He could suffer and die for us men. He must needs be true God so that His death and blood could have an infinite power of atonement.

As to His office, He is the only Mediator between God and man. As such, He is our High Priest, Prophet and King. As High Priest He offered Himself up for our sins and always prays for us. As Prophet He teaches us God's will to our salvation. As King He governs, preserves and defends those who believe in Him against their enemies. His work of redemption as Priest, Prophet and King was performed in a two-fold state—humiliation and exaltation. As to His states, each has five stages, or parts. The stages in humiliation were: The birth in poverty, the passion, the crucifixion, the death on the cross, the burial. The stages in exaltation were: The descent into Hell, the resurrection on the third day, the ascension into Heaven, the session at the right hand of the Father, and the return on the Last Day to judge the living and the dead.

By His holy life and perfect obedience, He fulfilled the Law in our stead (active obedience). By His bitter sufferings and death He endured our punishment (passive obedience). By His atonement He has satisfied God's justice and obtained for us deliverance from sin and death and the power of the Devil, together with the privilege of union with God and the restoration of the lost image.

(3) *The Establishment of the Kingdom of God*

The Kingdom of God, called also the Kingdom of Heaven, was first established in the Garden of Eden. When the blissful order of Eden was broken up by sin, the Kingdom was reestablished by the promise of grace through the Seed of the Woman, the coming of the Savior, and the election of Abraham and his offspring as the

Chosen People. A new day for the Kingdom was at hand when Jesus came. It was as if a new Kingdom were to be established with His coming. When Jesus began His ministry the Kingdom was announced with power as being at hand. Though often in great obscurity here on earth, the Kingdom of God shall be victorious and shall enjoy the bliss of the Eternal World. Here on earth it is the invisible Church, the communion of saints, or true believers. In its visible state it is the organized Church, where the Word is taught in its truth and purity and where the Sacraments are rightly administered. God Himself has founded the Church and commissioned it to save souls, and the gates of Hell shall not prevail against it (Matt. 16:18). It is militant. Its flag is the cross.

2. The Application of Redemption

Recall the psychological fact that man in the state of corruption is helpless in redeeming himself. The words of Luther's Catechism, already cited, apply here: "I can not of my own reason or strength believe in Jesus Christ, my Lord, or come to Him; but the Holy Ghost has called me by the Gospel, enlightened me by His gifts." "No man can say that Jesus is Lord, but by the Holy Spirit" (1 Cor. 12:3). To confess Him with the lips of course natural man in his corrupt state is able, but to call Him Lord in true faith is the work of the Holy Spirit. The Holy Spirit comes to men ordinarily through the Means of Grace. The application of redemption, then, is dependent upon how the Means of Grace are used. The Church, as the Kingdom of God, possesses these Means of Salvation, and the ministers of the Church, as ambassadors in Christ's stead, are commissioned to bring them to all (2 Cor. 5:20; Rom. 10:13-15; Matt. 28:18-20).

(1) *The Dispensation of the Holy Ghost*

The Holy Ghost took part in the creation of the world. He took part in the work of the Old Testament Church, as, for example, in moving the holy prophets to speak and write. If we take the word spiritual in a

specific sense to mean all the powers, states and activities of the soul in harmony with God's will, then all the spiritual life of the Old Testament times was wrought through the working of the Holy Ghost, even as all the spiritual life in our day is due to His presence. He had been promised to the New Testament Church with greater fulness and power. This promise was fulfilled at Pentecost. The promise of the Spirit still holds good: "If ye, being evil, know how to give good gifts unto your children, how much more shall your Heavenly Father give the Holy Spirit to them that ask Him?" (Luke 11:13).

(2) *The Means of Grace*

The Means of Grace are the Word of God and the Sacraments.

The Word of God is the spoken and written Word from Him. This Word can be divided into the Law and the Gospel. The Law was originally written in the conscience, so that all men, even in the state of corruption, do have it and are to a large extent guided by it. It was codified on Sinai and engraved on two tables of stone. It was made a part of the Bible, and the Old Testament especially is a true record of what it demands and of how God's people have tried to live under the Law and be saved by it. The Gospel was not originally written in the moral or the religious nature of man, but has been revealed later, and is given unto man through the Word and the Sacraments. It is especially in the New Testament that the Gospel is recorded, and the story of men who strive for salvation through faith rather than works is told. The psychological effect of the Word of God is that it corrects and illumines the conscience, makes it a true voice of God and not a reflection of custom and current public opinion, and it gives man a true faith in God, and restores him to sonship and communion.

The Sacraments are holy acts instituted by God, in which by visible means He bestows and seals His invisible grace. There are two Sacraments—Baptism and Communion. In Baptism a person is born again and is restored into union with God. In Communion, or the

Lord's Supper, a true believer, who is of such age and understanding that he can examine himself, is offered a powerful pledge of the forgiveness of sins. Through this Sacrament God bestows and seals His invisible grace.

3. The Effects of Redemption

The psychological effects of redemption are many. If we understand the term spiritual death to mean a loss of the image of God and a separation from His fellowship, and if we understand spiritual life to mean a restoration of the lost image and the communion with God, then it can be said that the effects of redemption are concerned mainly with the creation, nourishment, renewal and preservation of this spiritual life. To describe the psychological effects of redemption would be to write the soul life of a Christian as such. Space scarcely permits a bare explanation of the terms listed as effects. Redemption applies to children as well as to adults.

In the treatment of this topic we shall follow the lead of the dogmaticians. The dogmaticians of the sixteenth century gave most attention to faith and justification; the later dogmaticians elaborated more fully on other topics, such as, vocation, illumination, regeneration, conversion, sanctification, mystical union, good works and preservation. It should be noted that all these effects are brought about only through the power of the Holy Ghost. It is quite difficult to arrange all the topics in a logical order. We shall follow Sverdrup (166), who has the following order: Vocation, illumination, sanctification and preservation. The discussion of these four topics in the order of salvation will be preceded by a brief statement regarding faith and justification, and followed by a statement regarding regeneration and conversion. Each of the terms will here be defined as an act of the Holy Ghost (167).

(1) *Faith*

By faith is meant an act of the Holy Ghost by which He causes a man to believe on the Lord Jesus as his Savior and to appropriate to himself the gracious blessings God

offers to give to man for Christ's sake. Faith is one of the powers which the Holy Ghost implants in man at regeneration. The faith spoken of here is, of course, supernatural faith.

(2) *Justification*

By justification is meant the act of the Holy Ghost by which a man's sins are forgiven on account of Christ's merit. For Christ's sake God imputes Christ's righteousness to a penitent and believing sinner. He acquits him of sin and its punishment, and regards him in Christ as if he had never sinned (Rom. 3:24). By justification, all that Christ has suffered and done is declared to be the property of the individual believer. He receives a full pardon and a clear title to Heaven. Justification is an effect of faith.

(3) *Vocation*

By vocation, or the call (Latin, voco—to call), is meant the act of the Holy Ghost by which He awakens in our conscience a knowledge of sin, and invites us to accept God's grace in Christ (Eph. 5:14; 2 Tim. 1:9). He awakens us by the Law, and by the Gospel invites us to Christ (2 Thess. 2:14).

God calling yet!—and shall I give
No heed, but still in bondage live? (168).

(4) *Illumination*

By illumination, or enlightenment, is meant the act of the Holy Ghost by which He gives us a living knowledge of the truths of the Gospel (John 14:26; 2 Cor. 4:6). To the natural man everything spiritual is foolishness and Christ is a stumbling block (1 Cor. 1:23). Through illumination the Holy Ghost causes a sinner to see his sin and its awful consequences, to lay hold on Jesus as his Savior, and to seek refuge only in Him.

(5) *Sanctification*

By sanctification is meant the act of the Holy Ghost by which He sanctifies us through the Gospel and moves

us to holy works which are pleasing to God. Through sanctification we live lives of holiness, so that sin, which cleaves to us as long as we are in the body, disappears more and more, and gives place to an increasing facility in doing what is good (Eph. 4:22-24). A perfect sanctification is never reached in this life (Rom. 7:18; Jas. 3:2; 1 John 1:8), for the reason just stated that sin clings to one throughout the mortal life. The Old Adam, our sinful human nature, is strong in all of us. The heathen, through the promptings of his conscience often makes a valiant struggle against his natural evil tendencies. The struggle, however, is usually a victory for the Old Adam. In view of this the heathen Ovid cried out in despair: "I see the better; I pursue the worse" (169). The Old Adam is present also in every Christian, although a New Adam in the likeness of Christ also occupies his mortal frame. From the moment of regeneration there is a struggle, a daily struggle, to put off the Old Adam and to put on the New, to suppress sin and to make progress in holiness (Rom. 6:4; 2 Cor. 4:16; Eph. 4:22-24). The struggle is colossal and terrible at times. And no less a Christian warrior than Paul cries out in tones as despairing as Ovid's: "For the good which I would I do not; but the evil which I would not, that I do * * * Wretched man that I am! Who shall deliver me out of the body of this death?" Paul knew the answer and gave it at once: "I thank God through Jesus Christ, our Lord" (Rom. 7:19, 24-25). For Christ's sake God sends the Holy Ghost to help the Christian in daily gaining victories over the Old Adam and in giving more room to the New Adam.

(6) *Preservation*

By preservation, or conservation, is meant the act of the Holy Ghost, by which He, through dwelling in the individual believer, as well as the whole Christian Church, defends him against the temptations of the Devil, the world and the flesh, sustains and increases his faith and

holiness, and keeps him in union with Jesus Christ in the one true faith until the end.

(7) *Regeneration*

By regeneration, or new birth, is meant the act of the Holy Ghost by which He renews a man in God's image (2 Cor. 5:17; Tit. 3:5). As the beginning of the physical life is called birth, or generation, so the beginning of the spiritual life is called new birth, or regeneration. The new birth as God's child is real, and is solely the work of the Holy Ghost. For "that which is born of the flesh is flesh, and that which is born of the Spirit is spirit" (John 3:6). The changes that take place when we are born again are briefly as follows: In the understanding we obtain a new spiritual light; in the feelings, a new love to God and our fellowmen; in the will, a holy desire, power and longing; in the conscience, true peace and joy; in faith, a power to believe on the Savior and His Word.

(8) *Conversion*

By conversion is meant the act of the Holy Ghost by which He drives men, alarmed on account of their sins, to take refuge in Christ. Regeneration is an instantaneous act of God. Conversion has its roots in regeneration. It concerns a Christian who has sinned, or who has well-nigh, or completely, drifted away from Christianity. God has meanwhile not forgotten His child. He calls him. He enlightens him. He pursues him in this way and that, sometimes using sufferings, sometimes kindnesses, sometimes the example of others, and whatever else may lead a man to reflect, in order that He may lead him to contrition and faith. Contrition is a true sorrow for sin and a deep repentance before God, with a sincere profession, by God's help, not to sin again (Acts 2:37; Ps. 51). When a man has both contrition and faith, then he is converted. He has turned from darkness unto light, and from the power of Satan unto God (Acts 26:17). Conversion can happen again and again in the life of a man. It is always the work of the Holy Ghost and ordinarily through His Means of Grace.

A. QUESTIONS AND ASSIGNMENTS

I. Define natural state. State of innocence. The fall. Illustrate each. Explain the origin of sin. Its essence. Its degrees. Its punishment. The state of corruption. The deep depravity. The longing for redemption. II. Discuss the renewed state as to preparation. Application. Effects. Define faith as the operation of the Holy Ghost. Justification. Vocation. Illumination. Sanctification. Preservation. Regeneration. Conversion.

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CHAPTER FOURTEEN

LEARNING

So far the nature of the soul has been discussed. A few words about the nurture of the soul will now be in place. The general topic of soul nurture can be comprehended under the term learning. Learning is here taken to mean the same as education in its widest as well as narrowest sense. Bain says: "In the widest sense of the word man is educated, either for good or evil, by everything that he experiences, from the cradle to the grave. But in the more limited and usual sense the term education is confined to the efforts made, of set purpose, to train men in a particular way" (170). F. E. Bolton says: "Education is a manifold process of aiding the individual to come into possession of all the desirable features of his heritage, to minimize the undesirable ones, and to initiate new tendencies." Comenius says: "Education is the development of the whole man" (171). Education, or learning, is variously regarded as a power, a process, or a product. It is the process of training both body and soul. It is the product of such training—bodily health and vigor, copious and accurate knowledge, wide and cultured feelings, strong will, tender conscience, pure faith, good habits, stable character, varied skill, and specific preparation for a vocation, a respectable place in society and a happy state in eternity.

I. BASIS OF LEARNING: INSTINCT AND INTELLIGENCE

Though man proudly holds dominion over all creation, yet as a new-born babe he is not a very promising specimen, being more helpless than the young of animals, giving little evidence of having latent powers which can be developed. There is no way, at this stage, of deter-

mining whether the babe is to be a genius or an imbecile, a reformer or a criminal, a man of God or an infidel. Nevertheless, the little child, already at birth, does possess the native ability of being able to grow in bodily stature, in knowledge and every other psychical accomplishment. He has inherited a body, with a nervous system and other machinery, which is ready to react to stimuli in certain ways. He has inherited the powers of instinct and intelligence, which are ready to function according to the needs of the child, and by means of which he may acquire abundant learning.

1. Analysis

The ability to learn rests on instinct and intelligence, inherited psychical powers. These powers of the soul are, of course, closely dependent on the organs of the body, as, for example, the nervous system. Instinct (Latin, instigare—to prick, goad on) is the power of the soul to do acts "independent of instruction, prior to experience" (Paley). All men share in this heritage, as do also all animals, but in varying degrees, and in different directions (172). A bird flies, it builds its nest, without being taught how by the mother bird, and without any previous experience—this is through instinct. A baby cries at the first sensation of pain, though never before having had any experience in crying; he tries to suckle without having been taught—this is through instinct. The child instinctively makes sounds with his mouth as though he would like to talk, but he does not instinctively speak the English language, except in so far as he instinctively imitates those who speak it. The language is learned mainly through intelligence. Without sufficient native intelligence a formal language can not be learned.

Intelligence (Latin, intelligere—to collect together, to distinguish between) is the power of the soul to learn by means of instruction and with experience. Intelligence may have a wider or a narrower meaning. In its wider sense it includes all the major powers of the soul—knowing, feeling, willing, conscience and faith. In its narrower sense it is limited to knowing—the ability to

use the senses readily, to perceive accurately, to remember easily, to think to good effect, to appreciate situations, solve problems and to get along in the world.

Instinct and intelligence in some respects are quite different from each other. Instinct knows just what to do without instruction, but intelligence is a capacity for instruction. A dog chases a cat because of instinct, and he fetches the sheep because he has intelligence so that he could be instructed to do so. Birds of a feather flock

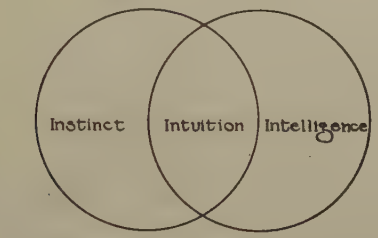

Fig. 46. BASIS OF LEARNING

together through instinct, and through intelligence the chickens learn to roost in a certain place. The child instinctively fears the dark, but he can through his intelligence be taught to understand that there is no ground for fear. Instinct is a force that makes the human race alike; intelligence is a force that tends to make all individuals differ from one another.

Instinct and intelligence are in some respects quite similar. Both are the basis of learning. Both can be suppressed or promoted by learning. Both are concerned with all the faculties and have in common the most fundamental part of the faculties. Intuitions are the property of instinct as well as knowing. The fundamental feelings as fear, anger, hate, love, are instinctive. There are hundreds of acts that are not volitional, but instinctive. Man is instinctively troubled in his conscience and instinctively is he religious, although both conscience and faith are powers that can be trained. In the animals the

instincts are much more definite than in man. In man, where conduct is much more complex, the instincts and intelligence are blended into each other in a most bewildering variety of ways.

2. Classification

In the following classification of instincts, it is evident that the instincts are not necessarily in a pure form. They may be mixed and modified by factors gained through intelligence. They do not appear except as they are needed. Thus the mating instincts appear in full vigor only as the individual approaches maturity. The list is not complete.

(1) Self-preservative: Sleeping, feeling, fearing, fleeing, fighting, washing, working.

(2) Parental: Sex love, courtship, parental love, filial love, brotherly love, home making, home defending.

(3) Self-progressive: Ambition, curiosity, hunting, greed and collecting, imitation, play, constructing.

(4) Social: Speaking and singing, seeking companionships and organizing in groups, embarrassment and shame, anger and resentment, jealously and rivalry, hatred and war.

(5) Moral.

(6) Religious.

3. Value

The whole subject is often dismissed with the remark that the brute has instinct, while man has intelligence. Instinct guides the migrating bird, as intelligence guides the mariner. But both man and beast have instinct, and both have intelligence. Man depends mostly on his intelligence and the beast mostly on its instinct. The chief function of instinct is to preserve the individual and the race, and the chief function of intelligence is to improve and ennoble the individual and the race. Many of the impulses and details of conduct which can not be explained by the immediate stimuli or the history of the individual, can be explained by instinct. Intel-

gence should as far as possible be developed in harmony with the instincts. The kindergartner, for instance, cultivates the intelligence of the little tots by making capital of their instinct to play. The manufacturer considers carefully the instinctive needs and wants of a community before he sets out to flood the market with his wares. The agent notes that the busy housewife does not welcome him, but by taking the trouble to pay a little attention to the baby he gets a hearing anyway and makes a sale. Wars are made on account of the instinct of fighting coupled with intelligence. Fame is reached by many a plodder on account of the instinct of ambition coupled with intelligence. Any one who wants to know human nature and to have influence over his fellowmen, should take into account the instincts of men plus their intelligence. "Man's many instincts," says LaRue, "are comparatively loose, general tendencies, like the tendency of a vine to climb upward, capable of training along many special lines" (173). Instinct is educable, especially in man.

II. PROCESS OF LEARNING: PRACTICE AND HABIT

1. Analysis

It might seem that what is instinctive does not have to be acquired, for instinct acts independently of instruction and prior to experience. This assumption is also, in the main, correct. But it must be remembered that the instincts do not all appear on the surface in full vigor at the same time, they do not unfold at the same rate, and they are not all equally definite. If the instinct is not used when it makes its appearance, it may fall into disuse and fail to exhibit itself when accasion again arises. Instincts not only disappear through disuse, but become more specific through use. The law of use, called also exercise, or practice, is writ large in learning.

We learn to do by doing. The infant is born with the faculty of knowing. Some thinkers (174) assert that the soul at birth is like an empty tablet, on which

experience, education and the environment will write the learning of the age and possibly the ages. Others (175) maintain that the soul is like a tablet on which are written already at birth the most essential truths of life, not in large, clear, bold letters, but in tracing, at least so that the letters can be written large, clear and bold later. Such writing is, for example, the innate idea which all men have as to there being a God, moral standards of God's making, and necessary ideas (intuitions). This latter view is no doubt right. We learn to do by doing. The various faculties—knowing, feeling, willing, etc.—all are developed through exercise. If we hold the theory that a child comes into the world without any innate knowledge, then it is plain that all the knowledge he ever gets, he gets through exercising his powers. If we hold the view that the child has innate knowledge and instincts, it still holds true that the faculties must be exercised—most of the tablet is blank and must be written on, and the innate knowledge and the instincts must be put to use. The law of exercise is fundamental in learning.

The earliest attempts at learning are by the trial and error method. Animals, like man, have intelligence and can therefore learn. They learn by the trial and error method, and, since they learn slower than man, it is often very profitable to watch them at their study task. A standard experiment is that of the maze. A hungry rat is placed in a maze, or cage, with a bit of appetizing food just outside. The rat tries this thing and that to get out of the cage and to the food. Finally, it succeeds. This is the trial and error method. More trials are given the same day and on a series of days, and the number of useless reactions are counted during each trial. It is found that the rat soon learns to find the opening and can go directly to the door and open it. This method is used more or less by all of us, especially the very young (176).

There is, of course, a vast difference between the process of learning in man and beast. Both learn by doing, by trial and error. Man learns also by observing and thinking. He therefore makes fewer useless move-

ments, in fact, he can get to the point where he has thought out movements in his head before he applies his hand to them. But in any event the law of practice applies. If a thing is done right, practice makes perfect. If it is done wrong, practice makes imperfect.

When a practice has been done often enough, or emphatically enough, it becomes a habit. When it becomes a habit, it is performed more easily, almost without effort, almost instinctively. From the time you get up in the morning to bed time there are thousands of things that you do every day automatically, without thinking about them, all through habit. Yerkes says that one-third of our acts are instinctive, one-third are habit, leaving only one-third to conscious performance (177).

2. Classification

Here attention is directed to only two types of practice—the trial and error method, and the observation method, or, the rote method and the rational method.

Also, only two kinds of habits are here listed, namely, good habits and bad.

3. Value

There is no royal road to learning. Every one must exercise his native powers in order that they may develop. Exercise, especially first exercise, recent exercise, frequent exercise, and intense exercise, strengthens a reaction, makes it more precise and more smooth-running, and gives it an advantage over alternative reactions which have not been exercised.

Habits are scarcely less important than the instincts (178). Good habits are a boon; bad habits, a bane. Good habits are our best allies; bad habits, our worst foes. "As without instinct," says Reid, "the infant could not live to become a man, so without habit man would remain an infant through life, and would be as helpless, as unhandy, as speechless and as much a child in understanding at three-score as at three." Maudsley says: "If an act were not easier after being done several times,

man might be occupied all day in dressing and undressing himself. The washing of his hands or the fastening of a button would be as difficult to him on every occasion as to the child on its first exertions. And he would, furthermore, be completely exhausted by his exertions." Horace Mann says: "Habit is a cable. We weave a thread of it every day till it becomes so strong that we can not break it." It is in childhood and youth that it is easiest to form habits, because then is the time of greatest plasticity. The child can be molded, as the potter molds his clay, after the likeness of Christ. Good habits are hard to form; bad habits are hard to break.

III. LAWS OF LEARNING: INTEREST AND APPERCEPTION

1. Analysis

There are many laws of learning. Two of these are: Interest and apperception. Interest looks forward; apperception, backward. The learner must want to learn —this is interest (179). He must connect up the new knowledge with what he already possesses—this is apperception (180). There should exist a perfect harmony between interest and apperception. The learner is not simply interested, but he is interested in something, and that something is a part of a little world of the learner's own which he has picked out from the great world about him. In short, he is most interested in himself and his experience. It is the object of parents and teachers to enlarge his world of experience and interests. The law of interest works also this way, that we get interested in what we attend to and we attend to what we get interested in. Knowledge gives wisdom and wisdom gets more knowledge. Wealth gives power and power brings wealth. "To him that hath shall be given" (Matt. 13:12).

2. Classification

Interest, from the view point of source, is native or acquired. A child's interest in play is native; his interest

in playing base-ball is acquired. Interest, from the view point of feeling, is either of a pleasant or an unpleasant sort. Newspapers reek with unpleasant news, movies screen the most horrible crimes and disasters, because they are interesting. Interest is, on the other hand, also of the pleasant sort—a sweet face, a kind word, a noble deed, a great moral truth, a home over there, and the like. From the view point of the object of interest, interest can be classified in many ways, as: Intellectual, emotional, volitional, moral, religious, or: linguistic, literary, historical, social, mathematical, scientific, philosophical, educational, musical, artistic, moral, religious, physical, vocational, etc., etc. Herbart, who a century ago made interest and apperception recognized as cardinal laws in psychology and pedagogy, made a table of interests, a systematic grouping of these powerful motives of mental action. He first grouped the whole field of interests into two main classes—nature and man. Then he subdivided the natural objects into three subclasses—the empirical, speculative and aesthetic interests; the interests of humanity he divided into three subclasses—the sympathetic, the social and the religious.

3. Value

Interest adds to the capacity for work and the regulation of fatigue. What makes the boys play foot-ball with such a vim and vigor and get so much pleasure out of it? Interest for one thing, mainly interest. Those who are interested laugh at hardships and scorn difficulties. Adventurers, gold seekers and explorers never feared arctic cold or torrid heat. Liebig, the celebrated chemist, was a dunce in Latin, because he had not become interested, but a brilliant student in his beloved sciences. Students can get interested in almost any subject if wisely directed. A railroad time table, says John Adams, wholly dull in itself, becomes interesting when one is to take a long journey. Secure interest. Direct interest. Get interested. Show interest. When one has something to live for, he can hold out wonderfully in the struggle with work, sickness and the like. He can do

better work, get more enjoyment and give more pleasure. Even while working for others, the worker himself can get much benefit from his labor, especially if he is interested. A certain builder had been unfortunate, but one day a friend gave him a contract to build a large house. The builder, to recoup his fortune, put poor material into it throughout. When it was finished, his friend told him that the house was his own. Learning is a nursery of interests. Education is a planting of interests, and here the law, stated in a previous chapter, holds good: "Great oaks from little acorns grow."

We perceive according to our past. We interpret the present in the light of our past experiences. This process of acquiring new ideas by the aid of old ideas already in the mind is called apperception. It makes learning easier and quicker. "Not that there is any easy road to learning, but there is a natural process which greatly accelerates the progress of acquisition, just as it is better to follow a highway over a rough road than to betake one's self to the stumps and brush" (181). Through apperception we make use of the knowledge that we have as a sort of bridge to the new. The old knowledge explains the new and it in turn is often enriched and illuminated by it.

IV. MEASUREMENT OF LEARNING: TESTS AND GRADING

Learning has its limitations. One of the reasons for this is the nature of the body which serves as a tool of the soul. The body is subject to fatigue. When it is tired it is filled with broken-down tissue and fatigue poison. If the same amount and quality of work are secured when the body and the soul are tired, then these are secured under great strain and with considerable suffering. Besides, there is a limit to the capacity of the bodily machinery under any circumstance. No one can pay attention forever. No one has eyes with microscopic or telescopic power. The capacity to learn is not the same for all individuals and for every period of life. The

learning capacity of imbeciles is very limited, that of geniuses is almost immeasurable, though limited. Childhood and youth are more impressionable than maturity and old age (182).

Learning does not always proceed at the same rate. The rate and progress of learning may be expressed either in terms of the amount done per unit of time or the time required per unit of work. Thus, the child can learn so many lines of poetry or so many pages of the catechism in a certain unit of time, or it takes so much time to learn the poetry or catechism agreed upon. The progress from day to day in any subject can be pictured by a graph or curve of learning. This has been tried out experimentally in many subjects, with nearly always the same results. One of the features is, that there are small, even large, individual differences from day to day. More important than this, is the appearance of plateaus in the curve. In the learning of any subject progress is quite rapid at first, but this is followed by a period of stagnation. With persistent application this period passes over, followed by another period of rapid progress again. This procedure of rapid progress followed by little or no headway, can be repeated several times before one comes to his maximum capacity for learning. Thus, on the typewriter a student works up to a certain maximum number of words per minute or hour, and beyond that he can not go. And in working up to that maximum he has had his periods of stagnation, which we here call plateaus. The learner should not be discouraged at reaching a plateau. They are natural resting places at which the hill climber can stop and catch his intellectual breath, so to speak. These are called plateaus, "plateaus of despond" (183).

Learning is accompanied by forgetting, and it is just as important to know how fast one forgets as to know how fast he learns. Learning is much concerned about not losing any of its treasures and is a sort of fortification against forgetting. Nevertheless, there is a constant process of forgetting going on, and this process is ac-

cording to law. Reference has already been made (in Chapter Six) to the curve of forgetting (Page 99).

The measurement of learning is an interesting and useful task, both as to amount and rate. Most practical of the measurement devices are no doubt the tests and grading schemes.

1. Analysis

Ruskin has said that no two leaves are alike. It is still more evident that no two people are alike. They differ from one another from the very start—in sex, race, family traits, physical characteristics, temperament

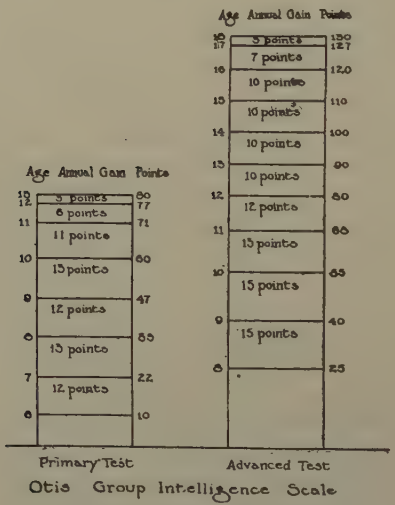

Fig. 47. A POINT SCALE

and intelligence. Intelligence must not be confused with learning, or education. Intelligence here means the native capacity to learn; education is the amount learned. People differ greatly from one another in intelligence, both as to kind and amount. A small per cent are very supernormal, called geniuses. A small per cent are very

subnormal, called feeble minded. The feeble minded are classified as idiots, imbeciles and morons. The idiots in their mental age never get beyond that of a normal child of two years; the imbeciles never exceed a seven-year-old; the morons never proceed farther than a normal child of twelve. One of the achievements of psychology is the intelligence test, devised by Alfred Binet in 1900-1908 to find out, not how much the child has learned at home and school, but what capacity he has for learning (184). His work gave rise to a worldwide study of the question and the making of intelligence scales innumerable. Some of these, like the Terman and the Otis, are excellent, though not infallible, and can be used by the average teacher without much trouble. The

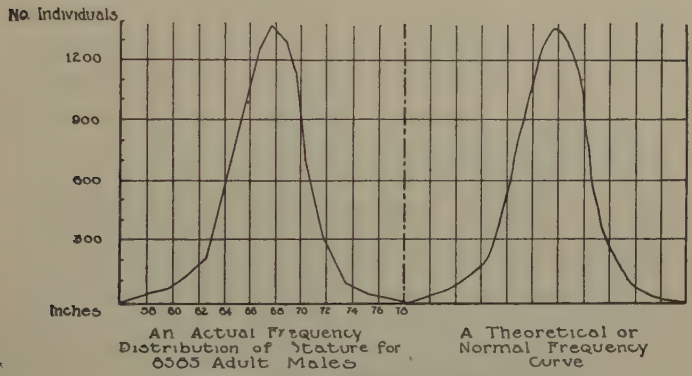

Fig. 48. FREQUENCY CURVES
(From Terman)

accompanying diagram on the Otis Scale shows that there is a growth of mental ability up to the age of seventeen, that this growth is most rapid at the start and slows up. The diagram of the normal curve shows that most people have average ability. Insanity is not necessarily feeble-mindedness; it is derangement of the mind, and may happen to those who have much mental ability (185).

In addition to the intelligence tests, which discover what a person can do, another class of tests has been

devised, called educational tests. These show what school children of any grade actually do (186). There are tests for almost any subject and grade. In penmanship, for example, speed is measured by the number of letters written per minute, and quality is rated by one of the standard scales, such as, the Thorndike. The Thorndike Scale in Writing consists of eighteen specimens of writing, representing eighteen qualities, from zero to almost perfection. To rate any sample of handwriting is to take it and place it up to the specimens on the scale, determining which specimen it is most like in quality. Each specimen on the scale is graded as to quality.

Grading (Latin, gradus—step) is a very ancient device of grouping individuals according to their capacity for work. It has frequently been based on chronological age alone, a rule that is manifestly unfair in many an instance. Other considerations are more important, as,

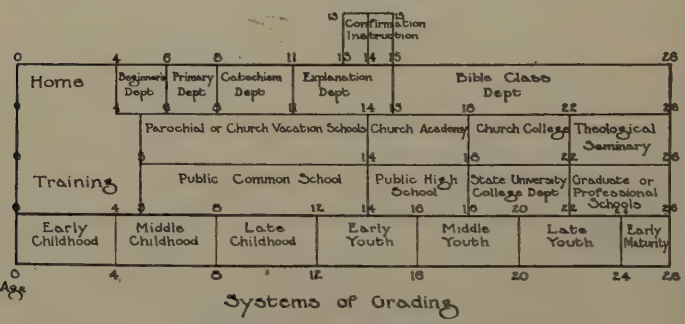

Fig. 49. GRADING IN THE AMERICAN SCHOOLS

mental age, sex, progress in studies, etc. Graduation (Latin, gradus) is the act of finishing a grade or a prescribed number of grades. With its certificates, diplomas, degrees and other marks, graduation is a well established method of measuring learning. The accompanying diagram gives the grades in the American public school system and the school system of the Norwegian Lutheran Church of America.

2. Classification

Intelligence tests can be either individual or group. The Terman (Stanford) Revision of the Binet-Simon Scale is an individual test. The Otis Group General Intelligence Scale is a group test.

Educational tests are classified as to the school subjects—reading, writing, arithmetic, spelling, etc. Such scales covering the Sunday School subjects should also be devised.

Grading in the American public school system includes the whole course of study from the first steps in kindergarten to the highest scholastic and professional degrees in the university. The system has four main divisions—the common school, with eight or nine grades; the high school, with four grades; the university college department, with four grades; the university professional department, with three or more grades. The churches maintain their own school systems with departments and grades paralleling the state system. The Norwegian Lutheran Church, for example, has no common schools in its system, as it uses the public school, and supplements the public school by the Sunday and vacation schools, the confirmation instruction, and other plans. It has academies corresponding to the public high schools, colleges corresponding to the university college departments, and a seminary for training preachers, normal schools for teachers, Bible schools for lay workers in the congregations. It has a Sunday School system with the following divisions: Beginner's Department, 4-5; Primary Department, 6-7; Catechism Department, 8-10; Explanation Department, 11-14; Bible Class Department, 15—.

3. Value

In every time and every clime everybody has been occupied in taking measurements of practically everything before them. Time and space, weights and capacities, money and other values, have been measured. Men have not been satified with vague judgments and loose

estimates. They have therefore set up standards, made measuring instruments, required actual and accurate application. A foot has just so many inches; a ton of coal has just so many pounds. Man is the greatest thing in the world, and the greatest thing in man is his soul. Men are called upon constantly to pass judgments on their fellows, and any kind of measuring rod is a help. The mental and educational tests, the grades and graduations just described, are such measuring rods. They are by no means perfect, but they are a great help.

"With the exception of moral character," says Terman (187), "there is nothing as significant for a child's future as his grade of intelligence. Even health itself is likely to have less influence in determining success in life. For us the rule of brawn has been broken, and intelligence has become the decisive factor in success." In commenting on the great practical results from the intelligence tests, Terman concludes that it ranks perhaps as the most important discovery in all the history of psychology. While one can in the main give his assent to this high rating of the intelligence test, he should bear in mind that we are, in the first place, placing too much stress on the importance of intelligence at the expense of the other powers of the soul and even at the expense of the health of the body. Therefore Spencer says: "Instead of respecting the body and ignoring the mind, we now respect the mind and ignore the body" (188). One should bear in mind, in the second place, that the intelligence tests are not infallible. The best they can do in the hands of the most experienced examiners is, to give an approximate answer as to how able a person is in learning. It does not measure his feelings, will, conscience, faith, his present interest or his future success.

With these limitations in mind, we can say that intelligence tests are very useful and that they can be used to advantage by almost any teacher. They will show whether a child or youth is normal or not in ability. From this result the teacher can learn whether the student is retarded, whether he is doing his best, whether he has any physical defects, whether the home environments are

unfortunate, whether he is in his proper grade, whether he needs special coaching or can take on extra work, whether he should prepare for this calling or that, and the like. Educational tests are better than examinations and other individual class room ways of measuring a pupil. They are based on very carefully selected questions and are the summary of thousands of returns, and become therefore a standard for a large group. A pupil may do well in his class, but does he measure up to the standard of his grade in the country at large? As to the advantages of grading, little needs be said. Kindergartners do not belong in the same class as high school seniors; feeble minded children can not compete with those who are normal or very bright.

A. QUESTIONS AND ASSIGNMENTS

I. What is the difference between the nature of the soul and its nurture? Define learning. Discuss the basis of learning as instinct. As intelligence. Analyze each. Illustrate each. Classify each. Give the value of each. II. Discuss the process of learning as practice. As habit. Give the analysis, classification and value of each. III. Discuss the law of interest. Of apperception. Analyze each. Classify each. Evaluate each. IV. Discuss the limits of learning as to amount and rate. How is learning measured? Describe the intelligence tests. The educational tests. Grading and graduation. Analyze, classify, evaluate each.

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CHAPTER FIFTEEN

CHILDHOOD AND YOUTH

Human life divides itself into four periods—childhood, youth, maturity and old age, corresponding somewhat to the seasons of the year—spring, summer, autumn and winter. As the seasons are each divided into three months, so each of these periods can be divided into three parts—early, middle and late. Thus: Early childhood, middle childhood, late childhood; early youth, middle youth, late youth; early maturity, middle maturity, late maturity; early old age, middle old age and late old age. Again, even as the months and seasons of the year glide imperceptibly into each other, so is the transition from one period in the life of a person to another period gradual and often unnoticed. Great changes, however, take place between spring and winter, between childhood and old age.

Every man is both an individual and a type. As an individual he is different from everybody else. As a type he is like everybody else within the race as a whole or some portion thereof. Types of human nature may be classified in various ways. There are color types, descent types, national types, family types, professional types, and so on. Some of these are inherited, others are acquired. White color and Norse blood are inherited types. The professional habits of a preacher and the creed of a Lutheran are acquired types.

There is always a struggle in the life of every person between the individual and the typical in him. In each period of his life he is both true to type and asserting his individuality. A child is typically a child, no matter how different he is from his fellows; a youth is typically a youth; a man is a man; and old age is old age. In the struggle between type and individuality, individuality gains, type loses. Nevertheless,

there is so much of type in each period, that students of human nature have always found it profitable to study each period by itself. Childhood and youth especially have been subject to careful and fruitful study. The great educational reformers, like Luther, Comenius, Locke, Rousseau, Pestalozzi and Froebel, earnestly turned their attention to the study of children and youth. Modern educators have used every scientific method known to the profession in the zealous study of childhood and youth, and have tried to interpret their results in the light of general psychology. It is everywhere admitted that it is highly important to know childhood by itself and youth as such (190).

I. CHILDHOOD

Childhood is pre-eminently the school years of Young America. In 1920 about 27.1% of the total population of the United States was under twelve years of age. Over 80% of these children between 5 and 12 were in

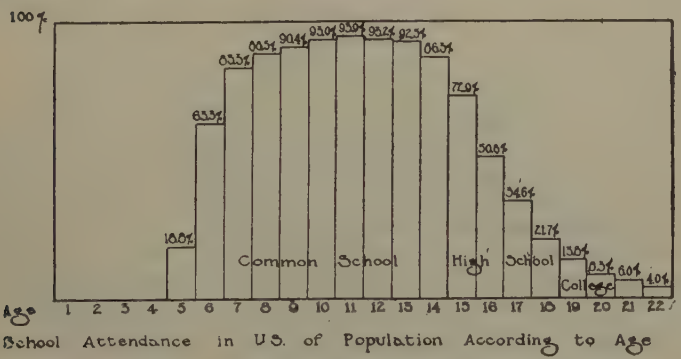


Fig. 50. SCHOOL ATTENDANCE IN 1920, BY AGE OF PUPILS

attendance at some school, public or private. In 1920 the total of school attendance in the United States of pupils ranging from 5 to 20 years of age was 21,373,976. Two-thirds of this number were under 12 years of age. The "Report of the U. S. Commissioner of Education for

1917" (II, 6) shows that the average number of years' schooling received by each individual in the United States increased from 3.36 years in 1870 to 6.32 years in 1915. That is to say: The average American now gets an education not much beyond the Sixth Grade of the Common School. Notwithstanding the fact that the states have enacted compulsory laws compelling pupils to attend school until they have reached their 16th birthday, most children quit school before they reach the high school age. Childhood is therefore very important from the teacher's point of view.

1. Physical Growth

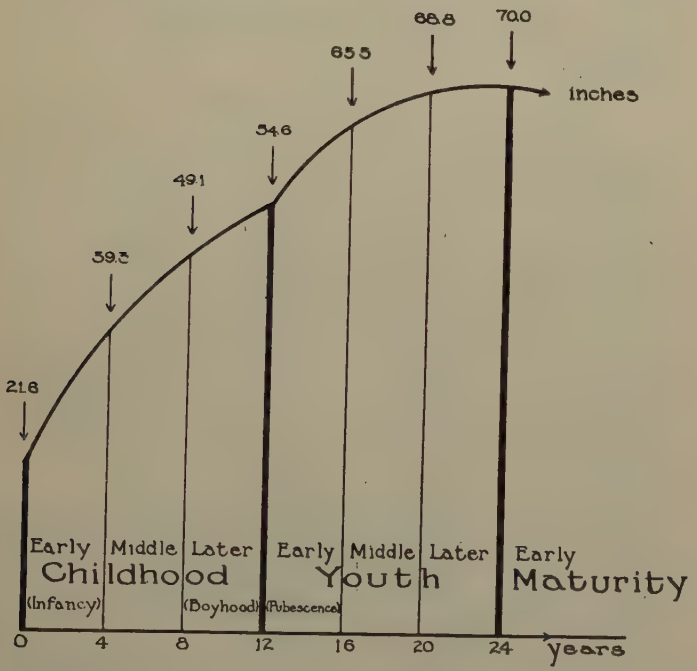
(1) *Height and Weight*

The period of childhood is generally twelve years in length (1-12). It is a period of rapid growth in height and weight. The growth is uneven, very rapid at first and gradually diminishing, until it is almost at a standstill for the space of four years (8-12). During the first year, the child grows about nine inches in length and gains 13 or 14 pounds in weight. The second year the child grows some five inches in height and puts on about five pounds in weight. He is now nearly one-half his adult height and about one-fifth his adult normal weight. At twelve the child has reached over 77% of his final height and is almost 50% of his weight at maturity. During late childhood there is, as stated, a pronounced retardation in the growth in height. It seems as if the body stops growing tall in order to let it develop proportionally in thickness and in order to give it a chance to rest up for the great changes that are to take place in early youth.

(2) *Parts and Organs*

If, instead of considering the growth of the body as a whole, we take note of the growth of the parts and organs, we shall again observe the fact that the growth is not constant. The parts do not all grow at the same time. They do not grow equally fast. They do not grow in

equal ratio. The brain, for example, has nearly reached its full weight by the eighth year, but the enlargement of the voice box in boys, with the consequent lowering of the voice, does not occur until a half dozen years



Progress of Growth in Height
(Boys)

Fig. 51. HEIGHT

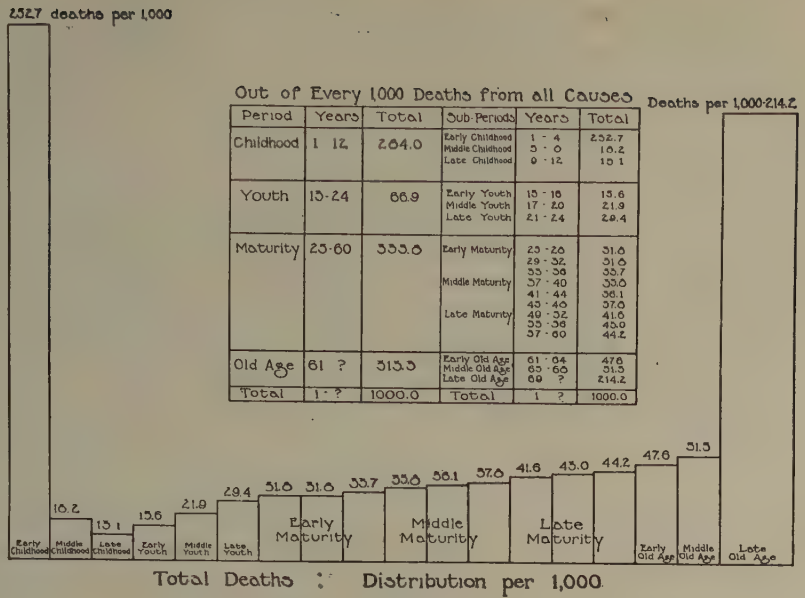
later. The brain reaches its full size before puberty, but the bones keep on growing till maturity, and the muscles and other organs continue growing after the bones have reached their limit. Some parts, like the eye, are almost full grown at birth. The brain increases, according to Vierordt (191), 3.7 fold in weight from birth to matur-

ity, the skin 7 fold, the stomach 20 fold, the lungs 20 fold, the skeleton 26 fold, the muscles 48 fold. Great changes are taking place in many of the parts and organs during childhood. The skull of an infant is about one-third of the total length. If it should keep on growing at an equal ratio with the trunk and limbs, the child before reaching manhood or youth would be hideously deformed.

(3) *Health and Strength*

Childhood is a remarkable period with respect to health and strength. The mortality among children under one year of age is still extremely high, even though it has been much reduced by the great advances in medical science. Out of a thousand deaths from all causes and among all ages, 179 are of children under one year old (192). Nearly 25% of the total deaths in the United States in 1913 was that of children under five. Early childhood has the highest mortality, and late childhood has the lowest mortality in the story of modern man. At no time in his life will the average person be relatively stronger or healthier than in the later childhood years, from 8 to 12.

Childhood is a period of dependence. Parents and teachers owe to the children to prevent disease where they can and secure for the body utmost health and strength. Physical defects should, where possible, be removed or remedied. Rowe says that 3% of the pupils entering the lower grades have defective eyes and 20% in the upper grades of the common schools need glasses. Poor light and eye strain are two of the major causes. According to Cornell, "the only considerable cause of habitual headache in children is eyestrain." Defective hearing leads to inattention, and should be relieved. Enlarged tonsils, adenoids, and defective teeth, are common physical defects that need attention. Flesh is heir to many ills and the child soon gets acquainted with this sickness and that. Parents and teachers should know what diseases (193) are most apt to come around; they should also know something about their symptoms, treatment and effects.



Out of Every 1,000 Deaths from all Causes

Period	Years	Total	Sub-Periods	Years	Total
Childhood	1 - 12	264.0	Early Childhood	1 - 4	252.7
			Middle Childhood	5 - 9	10.2
			Late Childhood	9 - 12	13.1
Youth	13-24	66.9	Early Youth	13 - 16	15.6
			Middle Youth	17 - 20	21.9
			Late Youth	21 - 24	29.4
Maturity	25-60	353.6	Early Maturity	25 - 28	31.0
				29 - 32	31.0
				33 - 36	33.7
			Middle Maturity	37 - 40	33.0
				41 - 44	38.1
				45 - 48	37.0
			Late Maturity	49 - 52	41.6
				53 - 56	43.0
				57 - 60	44.2
Old Age	61 ?	313.3	Early Old Age	61 - 64	47.6
			Middle Old Age	65 - 68	51.3
			Late Old Age	69 ?	214.2
Total	1 - ?	1000.0	Total	1 ?	1000.0

Total Deaths : Distribution per 1,000

Fig. 52. MORTALITY STATISTICS

Children should be taught a rigid adherence to the laws of health, such as, simple and good food, thorough chewing, sufficient clothing, pure air, ample sleep, weekly bathing, daily care of teeth, plenty of out-door exercise, and a moderate amount of manual work, with regular habits of study.

2. Psychical Growth

The facts of growth justify the division of the span of life into periods and sub-periods. Psychical growth parallels physical growth, and a sympathetic insight into the physical nature of the child is a good preparation for understanding the psychical nature of the child. Childhood represents an intense and rapid growth from almost absolute dependence to almost absolute independence. What can be more helpless than the new-born babe? And who can be more happy-go-lucky, self-satisfied, independent, and even lawlessly defiant than a twelve-year old? Thornton thinks that the key word to early childhood is receptivity, to middle childhood it is activity, and to later childhood it is energy. "In early childhood," he says, "the engine palpitates with preparation to start. In middle childhood the wheels grip the rails and feel their way out of infancy's train-shed. In later childhood there is a noisome dash for the open" (194).

(1) *Knowing*

It is the lower end of the ladder of knowing that concerns us during childhood. Not in the sense that the child does not also think. He does think. He thinks from earliest infancy, long before anyone can definitely analyze the process. But he is mainly engaged in early childhood in getting impressions. His sense organs are keener than at any later time in life; the senses are thrown wide open for information to come in freely. The rapid physical growth demands much motor activity, so that not only does the child see and hear much, but he also touches and handles much. This is a wonder-world to middle childhood, and the imagination is very busy. In late childhood the romance of middle childhood

becomes a hunger for more matter-of-fact things. The nervous system was at first so plastic that there are hardly any memories from the first two years of life. In late childhood the nerves seem to be the most impressionable and retentive in the life of a man. This is by all odds the age of memorizing and drill. "The muscles become firmer, the joints more closely set, the nerve connections better established, the bones harder and less pliable, the skin more capable of resisting abrasion, the organs of digestion, circulation and respiration more completely adjusted to their work and better fitted to handle the materials committed to them" (195). It is the golden age for learning by heart and establishing useful habits. It is in the church school the opportune time to learn the Catechism.

(2) *Feeling*

The child is interested in itself first of all, and self-interest can easily degenerate into selfishness. The early feelings are simple, and can hardly be called emotions, not even in the case of sorrow for loss of father and mother. Like all the rest of the faculties the feelings are capable of being trained. The feelings connected with the sensations are quicker and more acute than with youth and adults, and also more transitory. The child cries as readily as it laughs. Since every affective experience becomes apperceptive knowledge, it will not hurt to let the child experience the proper feelings. Let the boys and girls shed tears at the Passion story; let them rejoice at the triumph of right. The childhood feelings paint the memories of old age.

(3) *Willing*

The will in all its manifestations is on the increase in childhood. In early childhood the child is usually told what to do, in middle chilhood he generally asks what he is to do, and in late childhood he goes ahead and does something without being told, and often contrary to what he has been commanded. The child wants to do something. He will at first imitate others, but little by little

he will do it the way he wants. Not only suppression, but wise direction, is the best rule. As the twig is bent, so the tree is inclined.

(4) *Conscience*

Conscience at the outset seems to be just as wanting as the powers of knowing, feeling and willing, and like them it comes to its own gradually. Because conscience does not at once display itself with mature force, some scholars conclude that conscience is an acquired, and not an original, power of the soul. They might as well say that thinking is not a power, and sex attraction is not native, just because these do not flourish in the early years. Conscience is present in the child. It should be trained right, by the Word of God, so that in later years it will not be encrusted by any cultural veneer. "Train up a child in the way he should go," says the Good Book, "and when he is old he will not depart from it" (Prov. 22:6). Train early, or it will be too late. The hearts, the nerves, the soul, ossify so to speak. "In the streets of 'By and By,' one arrives at the house of 'Never.'"

(5) *Faith*

Little children can believe. Jesus held them up as an example unto their elders and for all time (Matt. 18: 3, 6). Luther urges us to pray in childlike faith. The child in mother's arms and at mother's knee is a type of faith. There is at first a complete confidence in all grown-ups. With middle childhood comes a wondering and a questioning, coupled with great credulity. Doubts and unbelief can begin to take root in later childhood, even before. Herbert Spencer and Tom Paine claimed to be infidels at the age of seven. Still, there are very few children who will not naturally and readily believe what they are told and what they read, no matter how unreasonable is the tale. The confidence which children have in their parents and superiors, is destroyed only by deception. One should therefore be very careful to tell the truth and to explain that fairy stories and such fic-

tions as Santa Claus are not true. The fact that the Bible is true in every detail and that God is not a man that He should lie (Num. 23:19), should be taught the children in season and out of season. Childhood is the best time to get a supernatural faith and to establish it firmly on God's Word.

The training of children is sometimes neglected and at other times misdirected. G. S. Hall (196) tells of a boy that grew up in a pig sty and bore the marks of the hog in his culture and habits. There is much illiteracy in the United States, due to neglect of secular education. There is much criminality and irreligion, due to the lack of Christian instruction. On the title page of a German Sunday school hymnal appears the inscription: "For our children only the best is good enough" (197). God wants every child to be His own and have a princely training in the best subjects and according to the best methods.

II. YOUTH

Like childhood, youth is a time for study and training. It is a twelve-year period, from 12 to 24, and falls into three sub-periods of four years each, called early youth, middle youth and late youth. A common name for youth is adolescence (from the Latin adolescere—to grow). This period includes the last two years of the common school, the four years of the secondary school (high school or academy), the four years of college, and the beginning of graduate or professional study. About 66% of the school population are children under 12, 30% are youths between 12 and 24, and 4% are adults over 24. Although less than one-half of the young people between twelve and twenty go to school, this is, like childhood, a school age. It is a most critical age, and the temporal and eternal destiny of the youth depends often on what has been taught him during this period. It has been shown, for example, that the eminently successful men listed in "Who's Who in America" and similar compilations, have, as a rule, had the advantage of higher education. The chances of eminent success for the high school

trained are over 20 times as great as for the common school trained; the chances for the college trained are over 800 times as great as for the man with only a common school education. It pays to take time to sharpen an ax or a razor (198). It pays to train the body and the soul in youth for the tasks of maturity. The best education trains the conscience and faith alongside of the other faculties, teaches the Word of God in its truth and purity, and teaches nothing contrary to Holy Writ.

1. Physical Growth

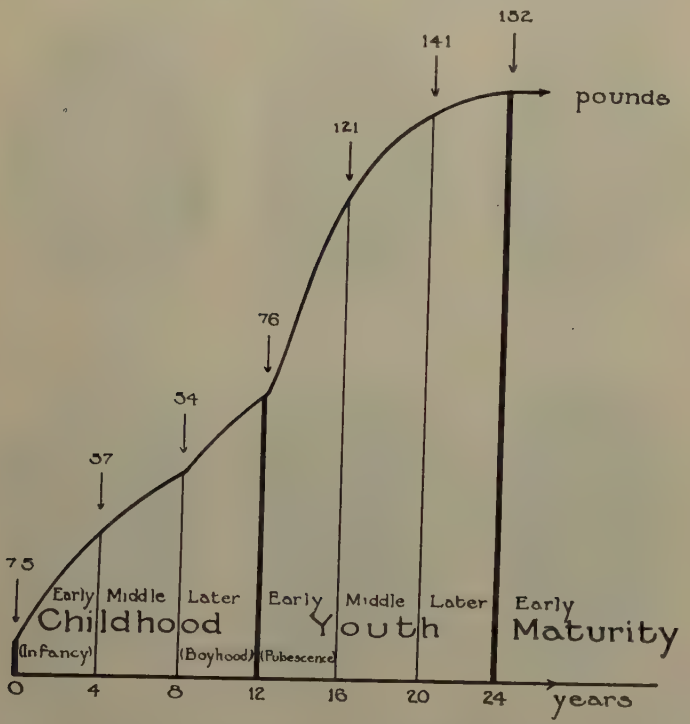
(1) *Height and Weight*

In late childhood there was very little growth in height, but considerable growth in girth, in health and strength. In early youth there is again a rapid and sudden shoot upward. You can almost see the boys and girls grow. They are like Indian corn in the tasseling period. In middle youth the growth upward slackens appreciably, and in late youth the adult height is reached. The growth in weight is also very rapid on account of the increase in the length and thickness of bones and the rounding out of the muscles. The limit in weight is, however, not necessarily reached at 24. Weight is subject to daily and seasonal fluctuations; it may be reduced by disease 50% and soon regained.

It should be noted that the male attains to an adult height of about six inches more than the female, or nearly 10%; and also that his normal mature weight is 25 pounds greater than that of the female, or 20%. Furthermore, it should be noted that the female matures in the growth of the body and its functions earlier than the male—she is anatomically and physiologically older than her brother of the same chronological age. At the age of one and three-fourths years she is as old as the boy of two. The difference gradually increases. At seven she is approximately as old as a boy of eight; at fourteen she is as mature as a youth of sixteen; at twenty-one she is as grown up as a young man of twenty-four. Arranged in tabular form their corresponding ages are as follows:

Male	4.0	8.0	12.0	16.0	20.0	24.0
Female	3.5	7.0	10.5	14.0	17.5	21.0

From the age of twenty-one she does not mature any faster than her brother. In fact, the average longevity of woman is higher than that of man. It is well known



Progress of Growth in Weight
(Boys)

Fig. 58. WEIGHT

that girls maintain a higher average of scholarship than boys in the grades and in the high school and even in college work. Woodrow thinks that girls are more intelli-

gent than boys only when the comparison is based on chronological age. And he concludes that when proper allowance is made for the girls' superiority in anatomical age, they will be found slightly less intelligent than the boys. At any rate, the boys overtake the girls in later youth and outstrip them in achievement (199).

OLAF AT 4

OLAF AT 8

OLAF AT 12

OLAF AT 16

OLAF AT 20

OLAF AT 24

Figs. 54-59. ILLUSTRATING PERIODS OF CHILDHOOD AND YOUTH

(2) *Parts and Organs*

Early adolescence marks the advent of puberty, the dawning of sex life (200). The age of the on-coming of pubertal changes varies with the individual, with the girl maturing before the boy as a rule. With the increase in height and weight and the advent of puberty is a corresponding increase or change in all the parts and organs

of the body, each having its own rate and period of acceleration and retardation. The bones harden and lengthen. The chest and hips broaden and deepen. The voice and ways of the male become more masculine; of the female, more feminine. All the vital organs increase in size and activity. The rapid growth of the parts and

FLORENCE AT 3.5

FLORENCE AT 7

FLORENCE AT 10.5

FLORENCE AT 14

FLORENCE AT 17.5

FLORENCE AT 21

Figs. 60-65. ILLUSTRATING PERIODS OF CHILDHOOD AND YOUTH

organs is at times confusing. The youth feels that his feet and hands are big and ungainly; he is therefore bashful and awkward. Gradually, this awkwardness gives way to a sense of power and poise.

(3) *Health and Strength*

The rapid physical growth and its complicated development of parts and organs usher in a period of uncertainty

with respect to the health and strength of the youth. It is a storm and stress period in which the weak are, as a rule, weeded out, and the physically fittest survive. There is an abatement of the diseases of childhood and an increasing liability to the diseases of maturity. As in childhood there is a high percentage of ill health, and, like middle and late childhood, a low percentage of death, but gradually on the increase (201). Youth should have plenty of moderate exercise, especially of the larger muscles, much quiet sleep, nourishing and varied food, freedom from worry, with regular, healthy work and study and wholesome social enjoyment.

2. Psychical Growth

The physiological maturing of sex, with the accompanying physical growth, is the background and, to a large extent, the foundation of the psychical growth of the teens. There is a psychical reconstruction as marked and as characteristic as the physical. There is an entirely new attitude toward life when the boy feels that he has become a man; the girl, that she has become a woman.

(1) *Knowing*

Childhood is the time to master the fundamental and elementary knowledge necessary to all the walks of life; it is the period of dogmatic instruction and drill; the sensations and memory are at their best.

The most characteristic thing about the youth's understanding is, that he tries to think as never before and he uses his creative imagination with a new and undreamed-of power. He wants to know the why of everything, and does not like to accept authority blindly. His power of thought greatly outruns his experience. He finds that he can not express himself as he would like to, and the words of Tennyson are applicable:

> *I would that my tongue could utter*
> *The thoughts that arise in me.*

As knowledge grows faster than experience, he will overestimate his own understanding and think that he

knows more than his parents and teachers. When others can not agree with him and his views, he will have an exaggerated sense of being misunderstood. Education must be made fascinating to him, or he may quit school. But, fortunately, the weather gets steadier. As he climbs upward in years and knowledge his horizon widens and his sense of perspective and values become truer. True, his ideals may be changed to a lower instead of a higher plane and his heroes may be of a baser sort. The normal youth is hungry for knowledge and thirsts after perfection. Matthew Arnold (202) would have a man pursue total perfection by means of "getting to know on matters which most concern him the best that has been said and thought in the world." The youth should be given a chance to learn the best there is in language and literature, history and social science, philosophy and education, mathematics and natural science, music and other fine arts, physical and vocational training, and last, but not least, moral and religious learning.

(2) *Feeling*

Youth brings with it an enlarged capacity for higher and more complex feelings. Early youth is a period of transition, and the feelings of this period are more or less transitory and fluctuating, like March and April weather. Middle youth is a period of idealism and aspiration, and the feelings of this period are heroic and sentimental as in the days of chivalry. Late youth is a period of self-assurance, and the feelings of late youth are more tempered and true, like a proud ship safely riding in the harbor after weathering a terrible storm. It is a very hard matter to analyze clearly the feelings of youth from the view point of capacity, cause, complexity, consequence, and the like, and it is a long tale. This discussion, in the very nature of a brief handbook, is manifestly inadequate. Apart from the general statement above, only a passing word will be said about feelings connected with sex and society, career and cause.

Now for the first time there is a keen interest in the opposite sex (203). The youth is swept away by a flood

of love. There have been weaker love symptoms already earlier—in the infantile love at eight or thereabouts, in the valentine-stage love at twelve, and so on. But now well on in early adolescence, stronger in middle adolescence, stronger still in late adolescence, love is real, and often at first sight. True love leads naturally to marriage. One out of 303 of the boys are married at 16; one out of 23 of the girls. 12.5 per cent of the young men are married at 20; 38.4 per cent of the young women. 42.3 per cent of the men at 24 are married; 64.2 per cent of the women (204).

Among the social traits are the following: The boys and girls have their chums and pals; they organize societies of their own and like to get together at social parties; they pay special attention to their appearance and dress, and, although they are often unconventional and flaunt the wishes of society, they gradually begin to long for social approval and conform to social standards (205).

They have a premonition of what career they are to follow, and either devote themselves enthusiastically to preparing for it, or they will oscillate between feverish superactivity and lethargic torpor, hiding from the world, and trying to hide from themselves what they feel they ought to become in this world. Like Jonah they often flee from the call to duty; like Isaiah they often say: "Lord, here am I; send me" (Isa. 6:8).

They dedicate themselves to causes as well as careers, and nearly all student commencement orations are in praise of some great character, noble cause, or important career. In no period of life does a person feel so capable of solving the deepest problems of life. They have a new appreciation of nature in all her moods, of moral standards, of truth and beauty and speculative knowledge. There is a new appreciation of self, of fellowmen, and of God. From them the reformers of the world spring; out of their ranks the volunteer soldiers come forth. 95 per cent of the soldiers in the Union Army of 1861-1865 were under 21 years of age.

(3) *Willing*

Youth is the storm and stress period of the will. Tumultuous and riotous desires clamor for satisfaction. Thoughts and ideals are extravagant and immature. Deliberation is hasty. But choices are made, choice of sweetheart and lifemate, of occupation and career, of moral standards and religious inner life and outward connections. It is an age of fervent resolutions and intense activity. This is no time to break the will, but to bend it. The fresh and noisy mountain stream should be led into right channels and directed over proper machinery to do the world's work.

(4) *Conscience*

We have seen that the period of youth witnesses a rapid and revolutionary change in the growth of the body, in the ability to think and imagine, in the variety and depth of the emotions, and in the independence and far-reaching effects of choices and acts. Conscience also during this period writes a new chapter in its history. Skovgaard-Petersen (206) remembers a sermon from his boyhood in which conscience was pictured as God's little friend. In childhood it speaks the language of the child. It stammers, babbles, and falters. It is, as it were, an echo of God's Commandments, and the child's behavior is governed essentially by the parents' commands and exterior agents. Not so in youth, however. "As by a bright gleam we now perceive how and what we should be. The longing for perfection resolves itself into great and good intentions, in painful self-examinations, in angry protest against the injustice of life, in a fiery yearning for purity, or in voluntary asceticism and renunciation." There is a longing for perfection, even as the Heavenly Father is perfect (Matt. 5:48). We make use of Christ's words at the Jordan: "It becometh us to fulfil all righteousness" (Matt. 3:15).

But alongside of the desire for perfection, conscience soon realizes the deep depravity of the human heart and the imperfection and weakness of human strength. It

begins to realize that within the human bosom lives a bad man, the Old Adam, and a good man, who argue with each other every moral issue, at least for a time. If the bad man prevails, the youth will break many of the Commandments of God and many of the ordinances of men. If the good man is victorious, the youth will walk the straight and narrow path. Most confirmations, con-

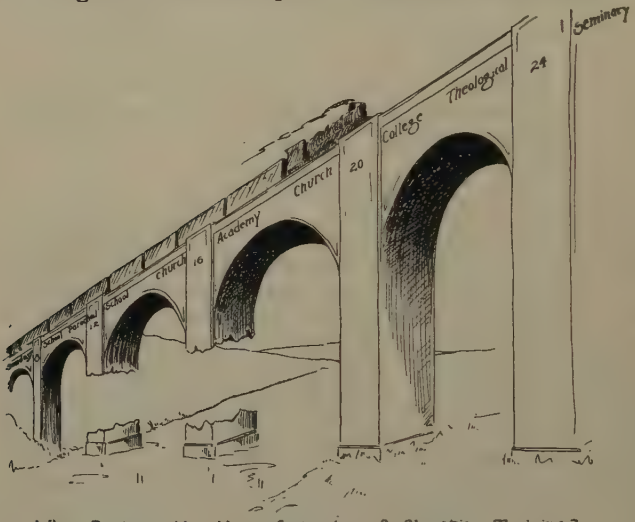


Fig. 66. CHRISTIAN SCHOOLS FOR THE YOUNG: PATRONIZE THEM (Sunday School, Parochial School, Church Academy, Church College, Theological Seminary)

versions and consecrations occur in early and middle youth. (207). Lutheran children are confirmed at 14 or 15. Out of 5,524 conversions reported by Ayres, Drew, Gulick, Hammond, Pope and Starbuck, 85% happened to persons under 20, and only 15% brightened the lives of people over 20. The best year for conversions was the age of 16. Ministers, missionaries and other church workers have nearly all made their decision and dedication during the high school age. On account of the lack of moral and religious instruction in the public high

school and university, very few students from these schools dedicate themselves to church work; church workers come from the church schools aiming and trying to teach the fundamentals of Christian morals and religion. In the good youth there is a fervent and faithful desire to obey the voice of conscience and the teachings of Scripture. In the bad youth the dictates and warnings of conscience are fought down, and the sinful man is allowed little by little to have his way. This is the period of the sowing of wild oats, whose crop is also wild oats (Gal. 6:7). There are many prodigal sons and daughters (Luke 15), some of whom never return to the Father's house (207). In his study of juvenile faults, immoralities and crimes, covering all civilized lands, Hall speaks of two sad and significant facts: First, that there is a marked increase of every kind of crime from twelve to fourteen, and on for a number of years, nearly all first commitments being in youth, and the worst criminals having had their start in youth. Second, that the juvenile crimes are everywhere increasing in number and gravity. This second fact is due to this, that people are getting more education, and this education is becoming more secular and less religious. An educated rascal is smarter and more vicious than an uneducated one (208).

(5) *Faith*

Youth has many longings, good and bad. He longs to get out from beneath the parental roof and his narrow surroundings. He has a "wanderlust," a call of the far-away. With Bjørnson's Arne he sighs:

Wonder I must, what I once may see
Over the lofty mountains!

And he cries:

Out will I!—Oh, so far, far, far,
Over the lofty mountains!
Here is this cramping, confining bar,
Baffling my thoughts, that so buoyant are,—
Lord! Let me try the scaling,
Suffer no final failing (209).

This deep-felt desire affects also the religious life of the youth. Either for good or for evil. For evil—the desire takes the turn that leads the youth to question the truth of Scripture, to accept the findings of negative criticism, to believe the wild and wicked heresies of this and that and the other philosophical and liberal cult, and to sit in the seat of the scoffers (Ps. 1:1). For good—the desire usually takes the turn that it leads the youth to become a prayerful and careful Bible reader and church goer, and, as a child of God, he leads a holy life, in accordance with God's Word. With Paul he counts all things to be loss for the excellency of the knowledge of Christ Jesus, his Lord (Phil. 3:8). With Mary he delights to sit at Jesus' feet, which is the one thing needful (Luke 10:42). The youth should be taught the Word of God, both the Law and the Gospel, in school as well as at home. And the parent, teacher, and preacher, should not only teach the Word correctly, but should also live according to it. The living example is the best teacher of youth.

A. QUESTIONS AND ASSIGNMENTS

Describe each of the four periods of life. How is man an individual? A type? I. Discuss childhood as to physical growth. Height and weight. Parts and organs. Health and strength. As to psychical growth. Knowing. Feeling. Willing. Conscience. Faith. II. Discuss youth in the same way.

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Among these diseases the following are illustrative: Disorders of early infancy; disorders during dentition; digestive and urinary disorders; colds and disorders arising from them, as, bronchitis and pneumonia; affections of the throat, as catarrh, tonsilitis, diphtheria, and croup; skin affections, as, eczema; constitutional diseases, as, rickets, scrofula and rheumatism; parasitic diseases, as, itch, ringworms, intestinal and pin worms; and contagious diseases, as, whooping cough, mumps, chicken pox, small pox, measles, scarlet fever and tuberculosis. The cause of deaths in the different periods varies approximately as follows:

	Diseases	Early Childhood	Middle Childhood	Late Childhood
(1)	Digestive (as diarrhea).....	25%	12%	8%
(2)	Respiratory (as pneumonia).....	18%	12%	7%
(3)	Contagious (as tuberculosis)....	17%	45%	44%
(4)	Nervous (as convulsions).....	4%	6%	6%
(5)	External causes	3%	15%	18%
(6)	Circulatory	1%	5%	8%
(7)	Urinary	1%	3%	5%
(8)	Skin and bone	1%	1%	1%
(9)	Ill defined	3%	1%	1%
(10)	Malformations	4%	....	....
(11)	Early infancy	23%	....	....
(12)	Puerperal	....	....	3%
		100%	100%	100%

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CHAPTER SIXTEEN

THE SELF

I. AS BODY AND SOUL

Self is one of the commonest words in the language. "To thine own self be true," says Shakespeare. "Self done, well done," says the proverb. What is meant by the self? It is the ego, or I, the me, or "meself," as the Irishman called it. It consists of the whole person—compacted, according to the dichotomists, of body and soul only, and, according to the trichotomists, of body, soul and spirit. The body is a part of the self, the soul is a part of the self, and the spirit is a part of the self. See Chapters One to Four.

II. AS CONSCIOUSNESS, MULTIPLE CONSCIOUSNESS AND SUBCONSCIOUSNESS

1. As Consciousness

In Chapter Five the meaning of consciousness was set forth. Psychology as studied in introductory courses and in most special courses is mainly a study of consciousness. Consciousness is awareness, a general name given to all the powers of the soul in its wakeful moments, or of all the processes and products of the soul. But the soul is much more than the sum total of all the powers, processes and products in wakefulness. It is well known that the soul is at work also in sleep, as in dreams and sleep walking. Consciousness is part of the self. Consciousness is the core of the soul, even as the soul is the core of the self.

2. As Multiple Consciousness

The remark is often made in psychological circles that a person really consists of a number of "selves" instead of only one, and that he has dual and multiple consciousness instead of consciousness pure and simple. Among the selves are such as: The body self, the clothes self, the family self, the property self, the business self, the social self, the intellectual self, the emotional self, the vocational self, the moral self, the religious self, and so on. There is often a rivalry and a conflict between these many spheres of interest, somewhat like the struggle between the Old Adam and the New Adam about moral issues (Eph. 4:22-24; Rom. 7.).

Now, if it be permissible to speak of our self as consisting of a multiplicity of selves, organized into a unity, we might with equal propriety speak of multiple or divided consciousness. Examples of this condition are of both normal and abnormal occurrence. "As a scientist," said a university professor, "I am an agnostic, but as a Bible class teacher I am an orthodox Episcopalian." This is a dual consciousness, and not infrequent. A girl plays at the piano and gossips with her friend at the same time. This is an example of divided consciousness, not at all abnormal.

Sometimes a person, through loss of memory or other derangement, may forget all the events in his ordinary life, but he is sufficiently normal to respond to a great variety of impressions as if nothing had happened to him. He will start a new career and keep on successfully, until suddenly he recalls his previous condition and promptly forgets the life he has just been living. James (210) describes one Rev. Ansel Bourne, living at Greene, R. I., who suddenly disappeared, leaving no clue to his whereabouts. Soon afterwards a man by the name of A. J. Brown started a store at Norristown, Pa. Six weeks after starting the store Brown declared that his name was Bourne and that he was entirely ignorant of Norristown, store keeping, and everything except his leaving Greene, as it seemed to him only yesterday. Judd (211) says

he knew the case of a young man who had two personalities at the same time. They talked to each other and held long discussions with each other. The abnormal man would mumble as he walked along the road an argument between his two selves. Even such cases of dissociation or multiplicity of consciousness becomes intelligible if we remember that it is natural for man to subdivide his experience into different systems, each of which can absorb his attention in turn. During the day when the teacher or business man is buried in the details of his work, he is almost lost to the rest of the world, and the body self, the clothes self, the family self, etc., are neglected until the day's work is over. The multiple consciousness and personalities of abnormal states are, then, analogous to the various selves and conscious states of normal life. Particularly is this true in the conflicts which a man has between his inherited sinful nature and his acquired Christian nature. The abnormal cases of multiple consciousness are caused by some disturbance of body or soul, as, nervous prostration or emotional shock. Meanwhile, even in case of great bodily weakness and baffling mental derangement, there is really only one consciousness, one personality, one soul, one self.

3. As Subconsciousness

The soul is conscious of only a tiny fraction of its experiences at any one time. Consciousness may include several things, or groups of things, at the same time within its field, but at best it is limited to a rather small number. Its natural way is to attend to one thing at a time and to change its focus from one object to another in quite rapid succession. It is always fluctuating, moving onward like a river fed by tributaries. On the one hand it is fed by new sensations, new experiences; on the other hand, it is fed by old experiences, memories, apperceptions. Its own headwaters are intuitions. It may be compared to the Mississippi with its great tributaries—the Missouri (sensations) and the Ohio (apperceptions). The sensations enter the main stream before the apperceptions.

As to what and where subconsciousness is, see Chapter Five. Just a word or two in addition. Modern psychology explains everything in psychology in terms of the nervous system. All our mental products, says the modern psychologist, are made up of sensations as raw material. Every sensation has come as a stimulus to some sense organ, has then run along some nerve, then perhaps over some synapse to another nerve, and on to the brain, where it has been recorded as a sensation. Every sensation has

Fig. 67 CONSCIOUSNESS AS A STREAM

left its trace in the nerve which it has followed and in some cell of the brain where it was recorded. The reservoir of past experiences, according to this explanation, is purely of a physical and physiological kind—tracks and pathways in the nerve cord and the brain cells. It is difficult to say how much truth there is in this theory. No traces have ever been discovered in the nerves or cells. The nerves are always wearing out and past experiences ought then to be thrown out of the system with the wasted nerve tissue. Nevertheless, such experiences can be recalled after ten, twenty, thirty, forty, fifty, or even more years out of deepest subconsciousness. It is too materialistic to think of memories as being only a record in the nerve cells somewhat like the impressions on a dictaphone, that can be worn down or scraped off. Besides, the experiences of the soul are psychical, not

physical, and it is not absolutely certain that they are connected with the brain cells alone or at all. The soul occupies the whole body and is not limited to the brain.

Truly, both the subject of consciousness and that of subconsciousness are very profound and greatly mysterious. In the "Tales of the Arabian Nights" is the story of Aladdin and his wonderful lamp. When this lamp was rubbed, any kind of magic could be performed. Aladdin could open mountains and transport himself through the air as quick as thought. Huxley has said that consciousness is just as unaccountable as the magic performed by Aladdin. It is certainly wonderful that when a ray of light from a far distant star comes along at the speed of 186,000 miles a second and hits the eye, a state of consciousness comes about by the results of the irritated nervous tissue. Possibly from that one single contact we see, we perceive, we associate, we memorize, we imagine, we conceive, we judge, we reason, we feel any of a hundred different affections and emotions, we desire, deliberate, choose, purpose, act, we distinguish between right and wrong, we are called to duty, we believe.

Subconsciousness is just as wonderful as consciousness and more far reaching in its influence than we can understand. Memory is a sort of subconscious faculty, for the power to retain knowledge is not in consciousness, but out of consciousness (212). Memory becomes less conscious as it becomes more complete, and when it has reached its greatest perfection, it is entirely unconscious (213). Apperception is a subconscious faculty. It meets the incoming perceptions, gives meaning to them, and saves them from passing almost or entirely unnoticed into obscurity. "Why do we, after a lapse of time, need to read an article of our own composition, and why does it then, to our surprise, often make an impression quite different from that which we had when we wrote it? Because now other trains of thought come to meet it, which, during the composition, were kept out of consciousness." "We are all aware when we think at all, how dependent we are upon the unconscious; and the greater, the nobler, the more brilliant our thought and qualities, the more it is

obvious to ourselves that their origin lies beyond our ken. We continually hear voices addressing us; we wish to do a certain thing, and are conscious of being opposed and hindered by some impulses from the unknown; or, on the other hand, we have no wish or desire to do a certain act which nevertheless we feel impelled by some hidden influence to do . . . . Unconsciousness (subconsciousness) accomplishes tasks so intricate that no conscious mind, even if it had the power, has the capacity for; but it also guides behind the scenes the direction of our thoughts, our tastes—in short, not only our physical, but largely our psychical life."

III. AS POWERS, PROCESSES AND PRODUCTS

1. As Powers

In Chapter Six a brief mention was made of the history of the term power, or faculty, in psychology. In former days, when psychology was regarded a branch of philosophy, is was customary for scholars to say that the soul was real and that it had powers. In our day, when psychology is being regarded more and more as a natural science, it is customary to dismiss the idea of soul and the idea of powers as unscientific and foolish. But be not deceived. Every branch of knowledge has its limitations. Every systematic branch of knowledge is a science; and while natural science is at present the Queen of the sciences, she does not represent all knowledge and can not compel all other sciences to adopt her scientific methods in every detail. One of her methods is to reject the supernatural and the spiritual. Therefore, in psychology, the soul is not real, and there are no faculties. There is no thinker back of the thought. James (214) says that the passing thought seems to be the thinker, and laments the fact that we must say "I think" instead of "It thinks." Titchener (215) says, that "the mind *is*, not has, thoughts and feelings, just as the chair is, not has, seat, back, legs." Pillsbury (216) admits that we know that we remember, make decisions and act, but

as psychologists we do not pretend to know what is behind any act or activity. As far as science can discover with her eyes and instruments there is no soul at all and no powers of the soul. She finds something at work which she calls mind, but this power is promptly declared to be purely a property of matter.

We hold with the Bible and common sense that man has a soul and this soul has faculties, or powers. Hastings (217) tells of a shipwreck in the South Seas. The sailors, cast upon an island shore, feared lest it was inhabited by cannibals. They climbed a hill and saw to their amazement just over the top the steeple of a meeting house. That took all the fear out of their souls, for they knew that that house had been built by human hands and planned by human minds who wished good will to men. Souls have natural powers and may have supernatural powers, as when a man is regenerated and believes in Jesus as the Son of God and his Savior. "But as many as received Him, to them gave He power to become the sons of God" (John 1:12).

2. As Processes

A moment ago, when we were considering the nature of consciousness, it was observed that consciousness was like a river flowing on. Thus, if a man is drowning, his consciousness surges like a raging mountain torrent fed by mighty glacial streams. One of these tributaries brings the new sensations of drowning. Another carries along with it most of the events of a life-time. In the twinkling of an eye almost, one can review his whole history, the trivial and remote and forgotten events alongside of the vital and recent familiar experiences. These are illustrations of processes, the sum total of which helps to make what we know as the self.

3. As Products

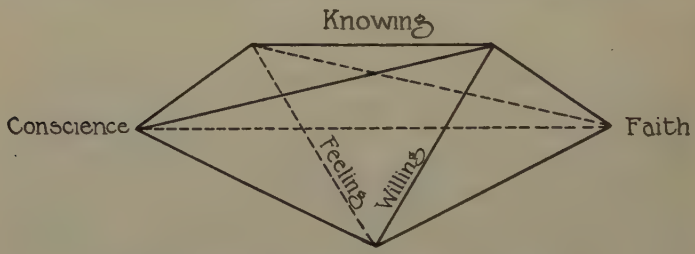
Every tree is known by its fruit. A man is known by what he says and does. The self can be studied from the nature of its products—sensations, perceptions, asso-

ciations, ideas, images, concepts, judgments, conclusions, feelings, desires, choices, acts, conscience, beliefs, language, literature, history, social science, philosophy, education, mathematics, natural science, music, painting, sculpture, architecture, agriculture, mining, manufacturing, commerce, customs, institutions, morals, religion, etc. The self can be studied as a product itself—of heredity, environment and education. Some have a predisposition to certain diseases; others, to certain crimes. Some live in an atmosphere of infidelity; others, in one of faith. Some souls are left like fallow wastes; others are carefully tilled, planted and watered. The self is, finally, the sum total of the products, processes and powers of the soul.

IV. AS UNITY, CONTINUITY AND IDENTITY

1. As Unity

The self is a unity. We recognize its dual character in several ways: It is body and soul, or matter and spirit. It may look upon itself as knower and known, as sub-



Interrelation and Unity of the Faculties

Fig. 68. THE FIVE MAJOR FACULTIES

ject and object. It may have a dual or multiple personality in both normal and abnormal situations, and have many interests and "selves" that may clash with one another. It may harbor the Old Adam that loves sin and the New Adam that hates sin. It manifests itself through many powers, processes and products, and many combi-

nations of these. Yet, while admitting this duality and complexity in the structure and workings of the self, we have reason to believe that it is a unity. It believes that it is a unit. It acts as a unit. It feels that it is a unit.

Fig. 69. THE MAJOR FACULTIES AND MAIN SUBDIVISIONS

It knows that it is a unit. It knows that it is the subject of consciousness and the object of its own reflections, the subject of its feelings, the agent of its activities, the possessor of its capabilities and character. It is sure that its "I," "my" and "me," does not belong to anybody else. Two diagrams are submitted to show the complexity and unity of the soul, the many in one. Both aim to summarize the analysis of the faculties in the previous chapters.

2. As Continuity

The self possesses continuity of life, even as the oak springs from the acorn. The stream of consciousness flows on unceasingly, ever feeding the stream of subconsciousness, ever fed by it. There is no real break in consciousness during wakefulness, because the mental states are probably all in activity at the same time, or maybe they overlap or follow one another. There is no real break in the flow of consciousness, because even during sleep it is quite probable that the soul is somewhat active, at times very much so. It flows on in dreams, though at lower levels and in unusual channels. It is freely admitted that while sleep and dreams are some of the best known phenomena of life, they are also but little understood. The question is of great interest as can be seen in the studies of Freud and Jung, who have built up a whole new psychology about dreams as the central fact of life, an explanation that is no doubt too fanciful to be true (218). But no matter how one explains the activity or want of activity during sleep, the continuity of the self is seen in the fact that after sleep a person can take up his task at the exact spot he laid it down as though there had been no break, no sleep, no dreams. The continuity of self explains the fact that a person can determine at what time he shall awake in the morning, and, if he has set his mind fixedly on getting up at said time he awakens on the minute. The persistence of memories, the recognition of objects, the identification of the self under all circumstances, and the law of apperception, are proofs of the continuity of the self. In the light of the continuous past one can also anticipate the future with surprising accuracy. Coming events cast their shadows before.

3. As Identity

The self knows that it is a real person and a particular individual, whom it calls "I" and "me." It is particularly sure of its own identity. It sees the identity in the marked continuity of experiences from the cradle to

the present moment. The body is constantly undergoing change—building up, breaking down, renewing its very structure, its every tissue. And yet, during all these physical changes the self knows itself at the present moment, and in its reflections upon past experiences. The soul is constantly experiencing something new, but still it is never confused as to its identity. It rests its conviction upon the sure testimony of its own self-consciousness and the witness of other men. Jesus healed a man blind from birth. The Pharisees, not liking this, tried to get the man to say that Jesus was a sinner. The man answered: "Whether Jesus is a sinner I know not; one thing I know, that whereas I was blind, now I see" (John 9:35). This man was sure of himself, that he had been blind and that he was the blind man in question. In every normal person's consciousness the self stands out as the one thing he is absolutely sure of. There was once a school of "philosophers" called Molboers. One of their doctrines was, that one could never be sure about his identity. One day, as a number of these highbrows were sitting on the grass with their legs spread out before them, they began to discuss who owned the respective legs before their view. They could, alas, not come to any agreement. So they called to a man who chanced to pass by, stated their dilemma, and asked him to help them solve the mystery. "Very well," said he, "we shall soon discover who owns the legs." He was carrying a horse whip, which he now began to ply with telling force upon the outstretched legs. The owners, one after the other, gave agonizing howls, pulled their precious bones together, and took to their heels. They were at that moment, like normal people everywhere, pretty sure of their own identity.

V. AS PERSONALITY AND CHARACTER

1. As Personality

Every person is both a type and an individual. At birth the type is most predominant and to such an extent that we have the saying: "All babies look alike." As the

child grows his individuality becomes more and more pronounced. Personality may be defined as the native individuality, and character may be defined as the acquired individuality. The self is a sum total of the two.

Personality is whatever in one's nature makes him different from the rest. It includes such factors as the bodily frame and constitution, the face and form, the capacity to learn, the temperament, the natural bent in matters intellectual, emotional, volitional, moral and religious. The laws of personality are those of heredity and are laid deep, serving later as a foundation for the building of character. The humblest child is often endowed with personality in a way far superior (or inferior) to either parent, and the charm of many an interesting personality is unknown outside of a small circle of acquaintances.

> *Full many a flower is born to blush unseen*
> *And waste its sweetness on the desert air* (219).

The influence of personality is perhaps fully as powerful and far-reaching as that of character, but most influential is no doubt the self in which a strong personality supports a strong Christian character.

2. As Character

Character (from a Greek word, meaning engraved) is the distinctive mark, the peculiar quality, or the sum of qualities, by which a person is distinguished. It is an acquired trait. Character is based on personality and built up out of habits. Each one builds his own character in so far as he freely uses his own faculties and forms his own habits. Each one has his character built up for him in so far as he is influenced by environment, by parents, teachers, pastors, friends, nature, books, work, play, the ideals of this world, the Word of God. Character has a tendency to mature and become more definite by self-activity. With age it becomes more and more fixed in its characteristics, whether they be good, bad or indifferent.

The kind of character we develop depends probably most on the environment, although it could and should depend most on our own will and the help that we may receive from the Lord. He is far more willing to give aid than any one of us is willing to receive it. The best time to learn, acquire habits, and form character is in childhood and youth, when the human body is growing, the nervous system is plastic, and the soul of man hungers and thirsts after knowledge. It is easier to form than to reform. You can bend the sapling, but not the tree. Strike while the iron is hot. True, it is possible to bend the will of adults and to change their habits. Great and sudden transformations, involving a complete change of character, can take place in adults as in youths and children, as, for example, when Saul of Tarsus on the Damascus Road was converted from Judaism to Christianity and his occupation was changed from that of a persecutor of the Christians to that of their most ardent defender.

Character may be classified in several ways. With respect to quality, character is good, bad or indifferent, as already mentioned. With respect to the predominating habit, character may be of an intellectual type, an emotional type, a volitional type, a conscientious type, or a believing type, or some combination of these, more or less complex, harmonious, energetic and pure.

A good character is the aim of every system of education (220). Good characters can not be burned or buried. Their influence can not be destroyed; their names will not die. "A good name is rather to be chosen than riches" (Prov. 22:1). "The righteous shall flourish like the palmtree" (Ps. 92:12). Character creates circumstances, said Emerson. It is victory organized, said Napoleon. Labor can not weary a strong character, obstacles can not discourage, danger can not drive away. It is a flywheel that regulates the machinery of society. It is not always possible to estimate a man's character and its influence truly, for it is somewhat like the man's shadow, sometimes following him and sometimes preceding him, occasionally longer, then again shorter than he is. Said Franklin: "The sound of your hammer at five in

the morning or nine at night, heard by a creditor, makes him easy six months longer, but if he sees you at a billiard table, or hears your voice in a tavern (saloon) when you should be at work, he sends for his money the next day." The best type of character is the Christian. Christ is the perfect Man, our Example as well as our Savior. His ideals are not only perfect, but practical, and His will is that all men should grow in Christian character up to His stature (Eph. 4:13).

Character is one of the main objectives of secular as well as of religious education. It is not the same as reputation. Reputation is what people think you are, and character is what you really are. Thornton has defined it thus: "Character is what you are in the dark" (221).

It would be interesting to study psychology, the science of the soul, at greater length than this book permits, and according to other methods also. Perhaps some of the readers of this book will do so. God speed. Meanwhile, we should be thankful that God has made us with wonderful bodies and souls. A stranger once approached a man on the street and asked him point blank: "Have you given thanks today for the use of your reason?" Taken aback, and somewhat overawed by the abrupt but solemn manner of the interrogator, the citizen answered in all simplicity: "I confess I have not." "Go, then, and do so instantly," continued the questioner, who was a maniac, "for I have lost mine" (222). It is therefore fitting to conclude this little study with the words of David, spoken about 3,000 years ago, as he studied psychology:

I will give thanks unto Thee,
For I am fearfully and wonderfully made;
Wonderful are Thy works:
And that my soul knoweth right well (Ps. 139:14).

A. QUESTIONS AND ASSIGNMENTS

I. Explain what is meant by the self as body, soul and spirit. Illustrate the dichotomist and trichotomist positions.

II. Explain what is meant by the self as consciousness, multiple consciousness and subconsciousness. Illustrate each term.

III. Explain what is meant by the self as powers, processes and products. Illustrate each term.

IV. Explain what is meant by the self as unity, continuity and identity. Illustrate each term.

V. Explain what is meant by the self as personality and character. Illustrate each term.

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INDEXES

INDEX OF PERSONS

(No. of Page)

Aars, K. E. K.—78
Aas, E.—103, 211
Aasgaard, J. A. —6
Abbie—114
Abbott, D. P.—78
Abel—161, 166
Abraham—112, 113, 161, 185
Adam—112, 113, 120, 144, 145, 163, 164, 178, 179, 180, 181, 182, 184
Adams, J.—201
Addison, J —158
Adler, F.—159
Aesop—101
Aeschylus—158
Alexander, A.—142
Alexander, J. L.—233
Alexander the Great—140
Aladdin—239
Allen, G.—129
Allen, M. Elizabeth—5
American Bk. Co.—5, 31
Ames, E. S.—158
Ananias—181
Andersen, J. N.—3, 5, 176
Anderson, J.—6
Anderson, J. B —158, 175
Anderson, R. B.—176
Andromache—123
Angell, J. R.—84, 90, 116, 137, 142, 209
Anonymous—48, 159
Appleton, D —5
Arends, W. E.—176
Aristotle—15, 26, 27, 41, 79, 94, 103, 140
Arndt, J.—155
Arnold, M.—227, 234
Augustine—79, 100, 130, 141, 142
Avicenna—80
Ayres, L. P.—210.
Ayres, S. G.—230

Bain, A.—39, 129, 193, 209, 249
Baird, T.—156
Baldwin, J. M.—41, 48, 66, 90, 129, 232
Baldwin, Jos.—90, 124, 209
Barker—55
Barrett, W. F.—78, 103, 142
Bartholomew, E. F.—129, 175
Bartlett, S. G.—26
Beardslee, C S.—211
Beatty, A.—6
Beck, J. T.—27, 48
Becker, W.—159
Begbie, H.—176, 177
Begstrøp, H.—176
Bennett, H. E.—103
Bente, Florence M.—5, 225
Bergen, J. T.—177
Bergson, H. L.—129
Bernard, E. R.—159
Besser, H.—141
Biedermann—55
Bigelow, J.—249
Binet, A.—116, 205, 210
Birge, E. A.—6
Bjørnson, B.—150, 151, 231, 234
Blaisdell, A F.—32, 58, 90
Blomgren, C. A.—6, 192
Bøckman, M. O.—6
Bolton, F. E.—5, 103, 136, 141, 158, 193, 209
Bolton, H. E.—5
Bonar, H.—176
Boraas, J.—108, 116, 211
Bourne, A.—236
Bowne, B. P.—146, 158
Breese, B. B.—90, 102, 103, 158
Brentano, F.—209
Brett, G. S.—48
Bridges, J. W.—210
Bridgman, Laura—86
Brierly, J.—142
Broen, E. M.—39, 103
Bronner, Augusta P.—210
Brorson, H. A.—27
Brown, A. A.—232
Brown, A J.—236
Brown, G. P.—39
Browning, R.—161, 175
Bruce, A. B.—176, 177
Bruce, G. M.—3, 5
Buck, J.—234
Bunyan, J.—86, 177
Burkland, J. H.—4
Burton, M. L.—180, 192
Bussewitz, M.—5
Butler, J.—159
Butler, N. M.—209

Caffarelli—140
Cain—112, 113, 166
Calderwood, H.—210
Cameron, E. H.—90, 210
Cannon, W. B.—39
Carlyle, T.—141
Carus, P.—39, 176
Cary, C. P.—5
Chemnitz, M.—142, 176
Christlieb, T.—176
Cicero—155, 162
Clark, H. W.—158, 159, 175
Clarke, E. H.—142
Clarke, G. A.—5, 138
Clemens, S.—28
Cleobulus—89
Clodd, E.—116

Coe, G. A.—158, 159, 176
Collins, E. T.—78
Columbus, C.—111, 160
Comenius, J. A.—193, 213
Compayre, G.—209, 210
Cook, H. C.—210
Cornell—216
Coue, E.—103
Cramer, F.—135, 141
Cremer, H.—26
Cromwell, A. D.—232
Cudworth, R.—155, 159
Cushman, H. E.—142
Cutten, G. B.—175

Dæchsel, A.—48
Dallmann, W.—177
Dana, M.—103
Daniel—44
Darwin, C. R.—129, 137, 142
Davenport, F. M.—158, 176
David, King—38, 43, 45, 112, 162, 248
Davies, J.—66
Dearmer, P.—176
Dearborn, G. V. N.—90, 129
DeGarmo, G. V.—210
Delitzsch, F —48, 66
Democritus—162
Demosthenes—134
Des Cartes, R.—65, 66
Dessoir, M.—158
Dewey, J.—116, 210
Dexter, T. P. G.—71, 72, 78
Dickson, V. E —210
Diekmann, H.—249
Doddridge, P.—176
Drake, Emma F. A.—233
Drayton, H. S.—39
Drew, F —230
Drummond, H.—129
Dumont, L.—129
Dunlap, K.—39, 66

Earhart, Lida B.—210
Ebbinghaus, H.—90, 99, 103
Eddy, Mrs. Mary B.—28
Eggleston, E.—211
Eisler, R.—66
Ekman, E. J.—176
Elijah—14
Elliott, Charlotte—177
Emerson, R. W —247
Empedocles—27
Enoch—161
Epicurus—27
Eriksen, R.—39
Euripides—158
Eve—118, 120, 145, 164, 178, 179, 180, 184
Evjen, J. O.—6
Ewer, B. C.—210

Farrar, F. W.—176
Fechner, G. T.—103
Felland, O. G.—6
Ferri, L.—103
Fitz, G. W.—35, 57, 63, 66
Fluegel, O.—209
Forbush, W. B.—234
Fossum, A.—6
Foster, M.—66
Fothergill, J. M.—142
Fowler, O. S.—39
Franklin, B.—87, 93, 139, 142, 248
Franz, S. I.—66
Freeman, F. N —210
Freud, S.—249
Froebel, F. W. A.—213
Fulton, R.—160
Funk, I.—78
Funcke, F.—22

Galileo, G.—161, 210
Galton, F.—71, 103, 114
Garlick, A. H.—71, 72, 78
Gates, A. I —53, 66, 68, 78
Gates, B.—6
Gayley, C. M.—176
Geiermann, P.—159
Gerhard, J.—26
Gifford, W. J.—210, 249
Ginn and Co.—5, 32, 58
Gjellerup, L.—176
Glasoe, O.—6
Glover, W.—27, 78
Goddard, H. H.—210
Godet, F —159
Goethe, F. W.—233
Golladay, R. E.—159
Gordon, Kate—210
Gordy, J. P.—24, 158
Graebner, A. L.—156, 192
Graebner, T.—26, 141
Gray, T.—249
Green, F. W. E.—249
Grieg, E.—75
Griffitts, C. H.—39, 88
Grimsby, H. P.—211
Gross, H. G. A.—234
Grosse, E.—176
Groves, W. H.—103
Gruenberg, S. M.—234
Gruender, H.—90
Guerber, Helene A.—158
Gulick, L. H.—230

Haas, J. A. W.—159
Haddock, F. C.—141, 142
Haeckel, E. H.—162
Handel, G. F.—140
Hall, G. S.—25, 27, 120, 158, 177, 221, 231, 232, 233, 234
Halleck, R. P —39, 40, 48, 66, 90, 111
Hall-Quest, A. L.—210
Haman—43
Hammond, E. P.—230
Hammond, W. A.—48
Haney, T. H.—5
Hansen, A. M.—233
Hanson, G.—6
Hardwick, Rose S.—210
Hardy, A.—5

Harris, W. T.—116
Hart, B.—39, 210
Hartmann, E. V.—78
Harvey, L. D.—5
Hastings, H. L.—176, 241, 249
Healy, W.—234
Heegaard, S.—129
Heisey, P. H.—159, 234
Helvetius, C. A.—159
Heraclitus—27
Herbart, J. F.—80, 89, 201, 210
Herbert, G.—73
Herod, King—149
Hertzberg, N.—234
Herzog—26, 48
Hexom, Edith—5
Hibbard, C. V.—6
Hill, D. J.—78, 116
Hill, J. A.—78
Hinsdale, B. A.—78, 116, 211
Hobbes, T.—94
Hocking, W. E.—159
Høffding, H.—90, 129, 159
Holberg, H.—132
Holbrook, M. L.—103
Holcomb, Frances—5
Hollingworth, H. L.—101, 103, 142
Holmes, S. J.—210
Holt, Henry—5, 35, 57, 60, 63, 77
Homer—123
Hood, F.—209
Hopkins, M.—142
Horne, H. H.—90, 135, 141, 158, 210
House, E. L.—158
Howley, J.—176
Hoyt, J. K.—89
Hudson, T. J.—78
Hume, D.—94
Humphreys, F. L.—233
Hunt, W. C.—234
Hunter, W. S.—130, 141
Huxley, T.—164, 176, 239

Inge, W. R.—249
Ingersoll, R.—162
Isaac—161

Jacob—45, 112, 128, 140, 161
Jacobs, H. E.—192
Jairus—42
James, St.—34, 170
James, G. F.—5
James, W.—66, 73, 78, 103, 120, 129, 139, 158, 176, 177, 236, 240, 249
Janes, E.—116
Jansen, J. J.—176
Jastrow, J.—158, 176
Jastrow, M.—159
Jeffs, H.—159
Jegi, J. I.—6
Jeppe—132
Jevons, W. S.—116
Jews—131, 133
Johansson, F. A.—159
John, St.—34
John the Baptist—109, 149, 184
Johnsen, E. Kr.—6
Johnson, F.—78
Johnson, H. A.—175
Jonah—228
Jones, Olive M.—210
Joseph—149, 161
Joshua—161
Judas—133
Judd, C. H.—116, 158, 236, 249
Jung, C. G.—249

Kallikak—210
Kant, I.—116, 155, 159
Kay, D.—103
Keller, Helen—86
Kelly, F. T.—6
Kennard, J. S.—142
Kent, Grace Helen—103
Key, T. H.—89
Keyser, L. S.—142, 159, 175
Kildahl, J. N.—177
Kingsley, C.—86, 90
Kirkpatrick, E. A.—158, 209
Kitson, H. D.—210
Klaeber, F. J.—6
Klemm, O.—80
Klykken, O.—211
Køstlin, J.—141, 176
Koren, J.—234
Kretzmann, P. E.—48, 211, 233
Krogh-Tonning, K. K.—116, 176
Krohn, W. O.—66
Krummacher, G. D.—155
Külpe, O.—78, 158

Ladd, G. T.—54, 56, 66, 158
Lang, A.—78
Lange, C.—120, 129, 210
Langehough, O. A.—5, 224
Lappin, R. C.—233
Larsson, H.—66, 90, 103
LaRue, D. W.—98, 103, 197, 209
Lashley, K. S.—6, 66
Lazarus—71
Leary, Eleanor G.—210
LeBon, G.—129
Lecky, W. E. H.—158
Lee, O.—6
Leibnitz, C. W. V.—80, 89
Lenker, J. N.—159
Leonidas—161
Leuba, J. H.—176
Lewes, G. H.—71, 78
Liaboe, J.—176
Liebig, J. V.—201
Liljeqvist, E.—89
Lincoln, A.—96
Lindberg, C. E.—6, 142, 176, 192
Lindtwed, C. B.—6
Link, H. C.—210
Lipscomb, F. H.—159
Locke, J.—84, 90, 209
Lodge, O.—6
Lodge, R. C.—78
Løgstrup, T.—158

Løkensgaard, K.—27, 211
Longfellow, H. W.—26
Longmans, Green and Co.—71
Lotze, R. H.—142
Lovell, A.—142
Lowell, Frances—6, 103, 210
Lucas, K.—66
Lucretius—162
Lunde, N.—139, 142
Luthardt, C. E.—158, 175
Luther, M.—14, 26, 109, 111, 135, 137, 142, 155, 159, 161, 170, 175, 176, 213, 220
Lyon, D. O.—116
Lysnes, D.—6

MacDonald, R.—177
Mackie, R. A.—232
Macmillan Co.—5, 52, 53, 55, 59, 65, 69, 74, 88
Madden, Grace D.—6
Magnusson, P. M.—72, 178, 124, 129, 158
Maher, M.—66, 142, 159
Mahling, F.—249
Mair, A.—177
Majid, A.—142
Malebrauche, N.—142
Mann, H —200
Marett, R. R.—175
Mark, T.—249
Marquis, A. N.—221
Martensen, H. L.—192
Martineau, J.—155
Mary, Virgin—44, 185, 232
Mattathias—161
Mattison, H.—26
Maudsley, H.—39, 103, 129, 199, 249
McCall, W. A.—210
McCosh, J.—155
McDougall, W.—71, 73, 78, 90
McKeever, W. A.—209
McKinney, A H.—232, 234
McLellan, J. A.—142, 210
McMurry, C. A.—210
McMurry, F. M.—210
Melanchthon, P.—137, 142, 159, 170
Mercier, C. A.—39, 249
Meyer, M.—39, 66, 90, 137, 142, 158
Mill, J.—113
Miller, I. E.—116
Miner, J. B —210, 234
Mitchell, I. C.—6
Modin, B.—39
Mohn, Th. N.—6
Molboers—245
Moninger, H.—233
Monroe, P.—209
Moore, G.—39, 78, 142
Moore, H. T.—39, 129
Morgan, C. L.—39, 90, 116, 147, 158
Morrison, W. D.—234
Moses—112, 161, 173
Moses, J.—158, 176
Mudge, E. L.—234
Müller, M.—177

Mullins, E. Y.—175
Mumford, Edith E. R.—176
Münsterberg, H.—130, 141, 158
Murray, J. A. N.—26
Murray, J. C.—116, 158
Myers, C. S.—66, 129
Myers, F. W. H.—176

Napoleon—102, 247
Nash, G. W.—6
Nasse, F.—48
Neumann, E.—166, 210
Noah—112, 113, 161
Norlie, O. M.—129, 176, 233, 234
Nørlund, N. J.—129, 249

Oehler, G. F. V.—48
Offner, M.—210
Oliver, C. A.—233
Origen—84
O'Shea, M. V.—6, 232, 234
Ostermann, W.—210
Otis, A. S.—204, 205, 207, 210
Overton, F.—30, 66
Ovid—190, 192

Page, D. P.—211
Paget, S.—232
Paine, T.—220
Paley, W.—194
Palmer, A. H.—234
Parker, F. W.—211
Parmelee, B. N.—39
Paul, St.—34, 109, 145, 190, 232, 247
Peabody, A. P.—159
Patridge, G. E.—249
Patzer, C. S.—6
Pearson, K.—26
Pestalozzi, J. H.—213
Peter, St.—34
Pharaoh—45, 153, 181
Pharisees—110, 245
Pick, E.—97, 103
Pierce, F.—78
Pieper, F.—176
Pierson, A. T.—116, 177
Pillsbury, W. B.—52, 55, 61, 66, 78, 158, 240, 249
Plato—27, 30, 39, 79, 129, 175
Plutarch—162
Poffenberger, A. T.—142
Polycarp—135
Pontoppidan, E.—159
Poor Richard—139
Pope, A.—13, 26
Pope, L. A.—230
Porter, N.—103, 139
Posnett, H. M.—176
Potter, M. C.—232
Pratt, J. B.—158, 176
Preyer, W.—232
Prince, M.—78, 177
Pringle, R. W.—232, 233, 234
Puffer, E. D —129
Putnam, D.—159
Pyle, W. J.—90, 158, 209

Pym, T. W.—158, 177
Pythagoras—89

Quain—63
Quick, R. H.—209
Quiros, C. B.—180, 192
Quish, Agnes E.—210

Rachel—128
Ragg, L.—116
Rahab—161
Rand, B.—66
Rashdall, H.—159
Raupert, J. G.—78, 158
Ravenna, P. D.—97
Raymond, G. L —176
Redfield, J. W.—39
Reid, T.—142, 199
Reu, J. M.—141, 233
Ribot, T.—78, 94, 103, 129, 142
Rice, W. N.—176
Richardson, G. S.—159
Richardson, N. E.—129, 232
Riddervold, J.—39
Ritschl, A —159
Roads, C.—232
Robinson, E. S.—158
Robinson, Florence B.—158
Romanes, G. J.—27
Rosanoff, A. J.—103
Rosenius, C. O.—177
Ross, E. A.—205
Rousseau, J. J.—213
Rowe, S. H.—216, 232, 233
Royce, J.—129, 176
Rudolph, Jennie—6
Rugh, C. E.—26, 159, 233
Rush, B.—72
Ruskin, J.—138, 204

Sabbatier—19
Salisbury, A. S.—6
Sanderson, R.—159
Sandwick, R. L.—210
Saul, see Paul
Schaff, P.—159
Schmauk, T. E.—211
Schmid, H.—176, 192, 211
Schmidt, F. A.—6
Schmucker, S. S.—129, 192
Schoeler, W.—26
Schofield, A. T.—78, 249
Scholz, J. P. F.—249
Schopenhauer, A.—137, 141
Schreiber, Emma—6
Schulstad, O.—90
Schuster, E.—200
Schutts, C. E.—6
Schuyler, A.—90
Schwartzburg-Rudolstadt, L. Elizabeth—142, 176
Schwegler, A.—66
Scranton, S. S.—177, 249
Scribner, Chas.—54, 56
Scripture, E. W.—158
Seashore, C. E.—39, 59, 65, 69, 70, 77, 78
Seeley, L.—142
Seneca—149
Sentennis—167
Shakespeare, W.—40, 48, 109, 150, 159, 235
Sharman, H. R.—142
Sheatsley, J.—211
Shields, T. E —210, 211
Sibbern, F. C.—116, 129, 209
Sidgwick, H.—155, 159
Sidis, B.—176, 249
Sikorski, I. A.—234
Silver, Burdett and Co.—72
Simon, T.—210
Sizer, N.—39
Skard, M.—116, 159, 175
Skørdalsvold, J. J —6
Skovgaard-Petersen, C.—229, 232, 234
Slattery, Margaret—210
Slaughter, J. W.—234
Slocum, R. M.—176
Smith, A. H.—211
Smith, W. R.—209
Smith, W. W.—232
Smoot, R —152
Smyth, N.—129, 158, 176
Snowden, J. H.—159, 176
Socrates—79, 161
Sødergren, C. J.—6
Solomon—15, 44, 102, 112
Spargo, J.—129
Spencer, H.—29, 116, 137, 142, 162, 165, 176, 208, 210, 220
Spies—61
Spinoza, B. D.—30, 39
Spurgeon, C.—142
Stalker, J.—71, 78, 143, 158
Stall, S.—233
Starbuck, E. D —158, 230, 234
Starch, D.—78, 101, 103, 116, 210
Starr, L.—232, 233
Stearns, J. W.—6
Stearns, L. F.—116, 139, 142
Steven, G.—142, 158
Stewart, A.—175
Stimpfl, J.—233
Stoics—79
Stolz, K. R.—176
Strand, S.—234
Stratton, G. M —48, 158, 176
Strong, C. A.—39
Strong, Emily W.—6
Sully, J.—90, 100
Sverdrup, H. U.—188, 192
Swain, G. F.—210
Sweet, H.—116
Swetenham, L.—176, 210

Tanner, J.—3, 5
Taylor, A. R.—66, 232
Taylor, J.—152, 159
Tennyson, A.—73, 114, 140, 155, 226
Terman, L. M.—116, 205, 207, 208, 210
Terry, M. S.—176

Tersteegen, G.—192
Tertullian—27
Tetens, N.—80, 90
Thales—89
Thilly, F.—13, 26, 143, 159, 176
Thomas, F. W.—210
Thomson, W. H.—220
Thorndike, E. L.—90, 116, 143, 158, 206, 209, 210
Thornton, E W.—111, 116, 158, 218, 233, 248, 249
Thouless, R. H.—129, 158
Tingelstad, O. A.—6, 26
Titchener, E. B.—62, 66, 74, 78, 90, 129, 158, 176, 240, 249
Tøsseland, N.—6
Tolo, T. O.—211
Townsend, L. T.—176
Tracy, F.—22, 175, 233, 234
Trench, R. C.—74
Tuke, D H.—39
Tuke, J. D.—39
Tuve, A. G.—6
Twain, M.—28

Ueberweg, F.—26

Valentine, M.—159, 176, 192
Van Biervliet, J. J.—78
Van Gehuchten—54
VanWagenen, M. J.—6
Vaughan, J. G.—176
Verworn, M —66
Vierordt, K. V.—215, 233
Vigness, L. A.—6
Villa, G.—48
Virden, L. Mae—6
Virgil—160, 175
Voigt, A. G.—192

Waldstein, L.—78
Waller, G.—26
Warman, E. B.—78
Warren, H. C.—39
Washington, G.—96
Wasmann, E.—209
Watson, J. B.—90, 130, 141
Watt, H. J.—103
Watts, I.—116, 159
Wayland, F.—159
Weidensall, J.—210
Weidner, F. R.—26, 159, 176, 192
Weigle, L. A —211, 233
Wells, J. D.—159
Wenner, G. U.—234
Wentz. A. R.—141
Weswig, C. M.—6
Whipple, G. M.—210
White, A. D.—176
White, E E.—105, 116, 124, 129
Whitney, W. D.—26
Whittier, J. G.—234
Wilhelm II. Weimar—177
Winer, G. B.—26
Witmer, L.—78
Wolff. C.—80
Wood, B. D.—210
Wood-Allen, M.—233
Woodrow, H.—6, 78, 103, 116, 210, 223, 233
Woodworth, R. S —54, 56, 60, 66, 142, 158
Wordsworth, W.—155
World Bk. Co.—210
Wundt, W.—39, 129, 209, 211

Xenophon—159, 161

Yerkes, R. M.—124, 129, 158, 199, 210
Ylvisaker, J. T.—176
Yoakum, C. S.—210
Young, R —26
Yun Sing—137

Zarephath—14
Zeno—27
Ziehen, T.—39
Zinzendorf, N. L. V.—176

INDEX OF SCRIPTURE PASSAGES

Text	Page
Genesis—	
1:1	166
1:20-30	26
1:31	51, 129
1:37	178
2:7	14, 41
2:17	181
2:19	26
3:1-8	179
3:6	179
3:10-11	182
3:19	14
4:8	181
6:5	181
6:17	26
7:15	26
7:22	26
8:21	42, 181
9:4	42
18:5	43
19:11	182
20:6	182
29:20	128
32:26	140
39:9	168
41:8	26
42:21	26, 149
45:26	45
45:27	26
Exodus—	
4:14	44
8:32	45
25:2	45
35:21	26
Leviticus—	
17:11	42
26:43	26
Numbers—	
16:22	26
22:12	182
23:19	221
Deuteronomy—	
4:29	26
20:8	38
28:65	44
29:4	41
29:19	43
Joshua—	
22:5	26
23:4	26
24:15	140

Text	Page
Judges—	
10:16	24
15:19	26
First Samuel—	
1:15	26
21:12	43
24:5	45
27:1	44
Second Samuel—	
6:16	44
17:10	42
First Kings—	
2:4	26
3:9	43
4:29	44
17:21-22	14, 23
17:22	42
21:7	43
Second Kings—	
23:3	26
First Chronicles—	
28:9	26
Second Chronicles—	
6:38	26
25:19	44
Esther—	
6:6	23
Job—	
4:19	42
14:4	181
Psalms—	
1:1	232
14:1	162
14:3	181
19:1	18, 162
19:9	111
23:1	41
32:3-4	38
32:11	45
33:10	182
42:2	26
51:3-9	191
51:10	45
53:1	18
55:4	41

Text	Page
73:21	38
90:2	166
92:12	247
139:14	248
145:17	179
Proverbs—	
2:10	26
4:23	145
14:13	44
22:1	247
22:6	220
23:16	38
29:18	102
Ecclesiastes—	
3:21	26
12:7	15
Isaiah—	
6:3	179
6:8	228
37:36	182
55:8	172
57:20-21	149, 182
66:24	149
Jeremiah—	
4:19	38
17:9	46, 182
23:9	38
Lamentations—	
2:11	38
Ezekiel—	
18:32	181
Daniel—	
1:8	44
Jonah—	
1:3	228
Zechariah—	
3:2	163
Matthew—	
3:15	229
5:3	26
5:48	229
9:4	44
10:28	14, 23, 26
11:23	44
11:28	175
11:29	26
12:18	26
12:34	45
12:45	45
13:12	200
13:14	87
13:19	46
16:18	186
18:3	220
18:6	220
23:37	131
26:39	141
26:41	26
27:54	172
28:18-20	186
28:20	153
Mark—	
2:8	44
5:34	170
7:21	45
8:36-37	19
9:35	173
11:23	45
16:15	181
16:16	172
Luke—	
1:46-47	23
2:19	44
8:15	46
8:55	16, 23, 42
9:7	149
10:42	232
11:13	187
15:11-32	231
23:46	23
24:25	45
24:38	44
John—	
1:1	166
1:11	131
1:12	241
1:12-13	182
3:6	181, 191
3:16	19, 128, 174
6:29	182
7:17	139
8:12	172
8:36	172
9:35	245
12:40	44
14:6	172, 182
14:26	189
16:6	44
Acts—	
2:37	45, 191
4:12	172
7:59	23
8:37	45
9:6	247
14:17	43
17:16	26
26:17	191
26:18	173
Romans—	
1:9	26
1:21	44
2:15	18, 45, 144, 145, 148, 182
3:10	182
3:12	180

Text	Page
3:23	181, 182
3:24	189
5:5	46
5:12	179
5:12-21	181
6:4	190
6:12	181
6:23	181
7:13	181
7:13-25	236
7:14	182
7:18	190
7:19	190
7:23-24	182
7:24-25	190
8:7	138, 168, 182
8:22	182
8:27	46
10:1	44
10:10	45
10:13-15	186
11:38	172
13:10	128
First Corinthians—	
1:23	189
2:14	138, 181
7:37	44
12:3	164, 182, 186
12:23	137
12:26	33
Second Corinthians—	
1:22	45
3:5	181, 182
4:6	189
4:17	184
5:1	42
5:17	191
5:20	186
6:10	123
8:9	173
8:16	46
Galatians—	
2:20	141
3:24	170, 174
3:28	173
5:19-21	182
6:7	231
Ephesians—	
1:4	184
2:1	182
2:3	181
2:5	138, 182
3:17	45
4:13	248
4:18	181
4:22	181
4:22-24	190, 236
5:8	181
5:14	189
5:19	44, 46
Philippians—	
3:8	232
4:8	172
Colossians—	
1:21	181
3:16	46
First Thessalonians—	
5:23	23, 26
Second Thessalonians—	
2:14	189
First Timothy—	
2:4	181
4:8	184
Second Timothy—	
1:9	189
Titus—	
3:5	191
Hebrews—	
3:12	45
4:12	23, 26, 45, 152, 158
11:1	161
11:25	173
12:2	182
James—	
2:26	26
3:2	190
4:17	182
5:15	170
First Peter—	
1:20	184
Second Peter—	
1:19	172
1:22	44
2:4	179
3:9	181
First John—	
1:8	190
2:6	179
2:16	128
3:15	182
4:19	168
5:4	174
Jude—	
1:6	179
Revelation—	
8:9	26
13:15	26
16:3	26
21:7	140

INDEX OF SUBJECTS

(No. of Page)

Abnormality—203, 205, 221, 231 237
Abstraction—106
Academy—206, 230
Acknowledgments—5, 6
Acquired types—212, 246
Action—45, 134-136, 169, 173, 195, 219, 229, 243
Active attention—75
Activities of knowing—82-83
Actual Sin—180, 182
Adolescence—221
Aesthetic emotions—127, 228
Affections—81, 126, 243
After-percept—98
Age of believer—171
Agnosticism—19, 29, 162
Aim of education—193, 247
Altruistic emotions—124, 127, 173, 228
Amnesia—236
Analogy—113
Analysis—93, 94, 117
Analysis of apperception—87-89, 200
Analysis of association—92-93
Analysis of attention—73-77
Analysis of character—246-248
Analysis of childhood—212-218
Analysis of conception—106-109
Analysis of connection between body and soul—28-31
Analysis of conscience—148-153
Analysis of consciousness—67-73, 235
Analysis of continuity of soul—244
Analysis of faculties—79-80, 240-241
Analysis of faith—165-170
Analysis of feeling—117-124
Analysis of grading—204-206
Analysis of habit—197-199
Analysis of head as seat of soul—49-66
Analysis of heart as seat of soul—40-48
Analysis of identity of soul—244-245
Analysis of imagination—100-101
Analysis of interest—200
Analysis of instinct—194-196
Analysis of intelligence—194-196
Analysis of intuition—83-84
Analysis of judging—110
Analysis of knowing—82-116
Analysis of learning—193-211
Analysis of major powers—81-82, 242, 243
Analysis of memory—94-99
Analysis of multiple consciousness—236-237
Analysis of natural state—178-182
Analysis of perception—87-89
Analysis of personality—245-246
Analysis of powers—79-80, 240-241
Analysis of practice—197-199
Analysis of processes—80-81, 240
Analysis of products—81, 241-242
Analysis of reasoning—112
Analysis of renewed state—183-192
Analysis of self—235-249
Analysis of sensation—84-87
Analysis of soul—13-27
Analysis of subconsciousness—69-73, 237-240
Analysis of superconsciousness—77-78
Analysis of tests—204-206
Analysis of unconsciousness—69-73
Analysis of unity of soul—79-82, 117, 130, 147, 148, 165, 238, 242, 243
Analysis of willing—131-136
Analysis of youth—221-232
Anger—64, 119
Animals—15, 16, 18, 194, 195, 198
Animal soul—15, 16, 18
Animal suggestion—102
Apostles' Creed—14, 116, 137, 164, 186
Apperception—87-88, 96, 100, 115, 202, 219, 237, 238, 239, 241, 244
Appetites—126, 127, 181, 243
Application of redemption—186-188
Aristotelian view of soul—41
Artificial conscience—151-153
Asceticism—229
Aspiration—227, 228
Association—91-94, 97, 101, 125, 243
Association areas—53, 58, 92-93
Association psychology—94
Atheism—19, 29, 162
Atonement—167, 184, 185
Attendance—213, 221
Attention—69, 73-77, 202
Attributes of feeling—120-124
Attributes of soul—16-19
Augsburg Confession—137
Automatic writing—77
Autonomic nervous system—62-64

Auto-suggestion—102
Aversion—132, 133
Awareness, see consciousness
Axone—56, 65

Baptism—171, 174, 187
Basic conscience—18, 45, 144, 145, 148, 151-153, 154, 157, 182
Basis of learning—193-197
Behaviorism—29, 81, 95, 130, 240
Belief, see faith
Bible—14, 25, 26, 33, 38, 41, 42, 43, 44, 45, 124, 128, 145, 172, 175, 182, 183, 220, 231, 241
Bible, see also Word of God
Biblical psychology—25, 27, 41-48
Biblical view of soul—26, 41-48
Bilious temperament—34
Bigotry—114
Blood—19, 34, 38, 42
Bodily death—17
Bodily feelings—124
Body—28-39, 49-65, 212-218, 221-225, 235
Bony frame—31, 33, 37
Bosom—19
Boyhood—215, 223
Boys—212, 215, 222, 223, 224, 226, 228
Brain—43, 52, 53-57, 64, 134, 215, 216
Brain the seat of the soul—95, 239
Breast—19

Call—189
Catechism—219
Career—228, 229
Cause and effect—93
Causes of feeling—120
Cerebellum—51-57, 58
Cerebrum—51-57
Central nervous system—51-59
Chances of success—221, 222
Character—193, 246-248
Childhood—206, 213-221
Child psychology—213, 220
Choice—44, 133, 135, 139, 168, 173, 229, 243
Choice of friends—139
Choice of helpmeet—229, 230
Choice of occupation—229, 230
Choice of school—139
Choleric temperament—34
Christ, see Jesus Christ
Christian education—154, 157, 170, 172, 200, 221, 222, 230, 246
Christian faith—171
Christian psychology—25, 27
Christian Science—28
Christian warfare—189, 190, 191
Church—19, 171, 172, 186, 187, 190
Circulatory system—32, 34, 38
Clairvoyance—77
Classification of action—134, 136, 137
Classification of apperception—200, 201
Classification of associations—93
Classification of attention—75
Classification of character—247, 248
Classification of concepts—107, 108
Classification of conscience—153-154, 156
Classification of consciousness—68-71
Classification of faith—170-172
Classification of feelings—124-127
Classification of forms of reasoning—112-114
Classification of grading—207
Classification of habit—199
Classification of ideas—99
Classification of images—101, 102
Classification of faculties—79-82
Classification of instincts—196
Classification of intelligence—196
Classification of interests—200, 201
Classification of intuitions—84
Classification of judging—100, 111
Classification og knowing — 82-83, 91, 104, 105, 242, 243
Classification of notions—105
Classification of percepts—88-89
Classification of practice—199
Classification of reasoning—112-114
Classification of sensations—86
Classification of sins—157, 180, 182
Classification of tests—207
Classification of willing—136-138
Cognition—81
Cold—36, 60
College—206, 230
Common sense—111, 120, 241
Communion—187, 188
Comparative training—108
Comparison—106, 107
Complete method—112, 113
Composition of feelings—120-127
Conation—82
Concentrated attention—72
Concentration—71-77
Concept—106-109, 110
Conception—106-109, 243
Confirmation—230
Conscience—45, 82, 84, 120, 143-159, 163, 165, 173-174, 182, 183, 191, 193, 194, 195, 220, 222, 228-231, 242, 243
Conscience aspect of faith—169-170
Conscience veneer—151-153
Consciousness—19, 67-73, 145, 235, 239, 240, 244
Consecration—228, 230, 231
Conservation—190-191
Contiguity—93, 97, 193
Continuity of soul—244
Contrast—93, 97
Contrition—191
Conversion—100, 138, 191, 230, 247

Corporal feelings—124
Corruption—162, 181, 182
Cortex—55, 58, 95
Cosmic feelings—124
Coveting—132
Cranial nerves—35, 57, 60
Creation—14, 15, 16, 19, 41, 51, 145, 167, 178, 248
Crime—221, 231
Current theories of soul—28-33
Crystal visions—77

Day dreaming—94, 101
Dead faith—171
Death of soul—16-17
Deduction—113
Deficiency—203, 205, 221, 231, 237
Defiled conscience—156
Definition—106, 113
Definition of action—134-136
Definition of apperception—200
Definition of association—92-93
Definition of attention—73-75
Definition of character—246, 247
Definition of choice—133
Definition of conception—106, 107
Definition of conscience—145
Definition of consciousness—67-69
Definition of deliberation—133
Definition of desire—132, 133
Definition of education—193, 202
Definition of faith—161-164
Definition of feeling—81, 117-118
Definition of ghost—19-23
Definition of grade—206
Definition of grading—204-206
Definition of graduation—206
Definition of habit—197-199
Definition of heart—24, 40-48
Definition of imagination—100-101
Definition of intelligence—194-196, 204
Definition of interest—194-196, 200
Definition of intuition—83
Definition of judging—110
Definition of knowing—81
Definition of learning—193
Definition of memory—94-99
Definition of mind—24, 79, 240
Definition of notions—104, 105
Definition of perception—87
Definition of personality—247
Definition of practice—197-199
Definition of psychology—13
Definition of purpose—133, 134
Definition of reasoning—112
Definition of sensation—85
Definition of soul—15-16
Definition of spirit—23
Definition of tests—204-206
Definition of willing—130-136
Degrees of attention—75
Degrees of consciousness—69-73
Degrees of feeling—121-122
Degrees of sin—181
Deliberation—44, 133, 168, 229, 243
Delinquency—231
Dendrite—56, 65
Denomination in conception—106, 107
Denomination in faith—171, 172
Depravity—162, 181, 182, 229
Desire—44, 132, 133, 168, 173, 229, 243
Destiny of soul—17, 19
Devil, see Satan
Devolution—166
Dichotomy—19-24
Dictionary—108, 109
Diffused attention—72
Digestive system—33, 34, 37, 38, 119
Disease—216, 226, 233, 237
Disobedience—179, 180
Dispensation of Holy Ghost—186, 187
Dissociation—101, 236, 237
Dogmatics—192
Double Aspect Theory—29, 30
Doubt—133, 220, 232
Dreams—94, 102, 244
Dualism—28-30
Duration of attention—76-77
Duration of consciousness—73
Duration of feeling—123-124
Duty—96, 145, 155

Ear—36, 37, 59, 62
Ear Gate—86
Early childhood—212, 215, 218, 223
Early maturity—206, 212, 215, 223
Early old age—212
Early youth—206, 212, 215, 223
Educational standards—206-209
Educational tests—206
Education of hand—48
Education of head—48
Education of heart—47, 48
Effects of redemption—188-191
Ego—235
Egoistic emotions—124, 126, 228, 235
Emotions—64, 81, 119, 126, 127, 219, 238, 243
Enlightenment—189
Equilibrium—37
Essence of sin—179-180
Essential parts of man—14-16
Establishment of Kingdom of God—185, 186
Eternal death—17
Eternity—17, 19, 184
Evolution—14, 15, 50, 65, 166, 180
Example—232, 248
Examples of faith—160-161
Exercise—197, 198, 226
Experience—226
Experiment—25
Extensity of consciousness—69
Extensity of feeling—122, 123

Eye—36, 37, 58, 62, 215, 216
Eye Gate—86

Faculties—51, 79-82, 242, 243
Faculties, see also Powers
Faculty psychology—79, 80, 240
Faith—40, 82, 130, 160-177, 179, 188-191, 193, 194, 195, 220-221, 222, 231-232, 242, 243
Fall—163, 179-181, 184
Fancy—101, 102
Fatigue—96, 119, 202, 226
Fear—150, 151, 155, 168, 195
Feeble minded—51, 114, 203, 209
Feeling—44, 81, 117-129, 130, 131, 147, 148, 165, 173, 179, 181, 191, 193, 194, 219, 227-228, 242, 243
Feeling aspect of conscience—150-151, 242, 243
Feeling aspect of faith—168, 242, 243
Female—222, 223, 224, 225, 226, 228
Fluctuation of attention—76, 77
Focus of consciousness—71
Food—33, 96, 226
Foreword—3
Forgetting—70, 72, 73, 98, 99, 203, 204
Forgiveness of sin—181, 184, 189
Formal steps—106
Forms of sin—180
Freedom of will—137-138, 182
Freethinkers—150, 151
Free will—137-138
Frequency—96, 199
Frequency curves—199, 205
Freudians—244
Furies—146, 149

Ganglion—62, 139
Generalization—106, 107
General notion—104-109
Genius—114, 203, 204
Ghost—19-23
Girlhood—215, 223
Girls—222, 223, 224, 225, 226, 228
Glands—64, 65, 119
Gliding sensation—37
God—14, 15, 16, 17, 18, 19, 23, 38, 41, 44, 45, 46, 51, 82, 84, 100, 111, 115, 127, 128, 138, 139, 144, 149, 151, 152, 155, 161, 162, 163, 164, 165, 166, 167, 168, 169, 173, 178, 179, 181, 182, 183, 184, 186, 187, 188, 189, 190, 191, 194, 198, 221, 228, 229, 231, 248
God's eternal purpose—184
God's image—163, 178, 179, 181, 184, 191
Good works—188
Gospel—160, 186, 189, 232
Grade—206
Grading—202-209
Graduation—206
Growth of body—214-218, 226-232
Growth of soul—218-221, 226-232
Growth of memory—96-98

Habit—59, 135, 137, 139, 193, 197-200, 219, 247
Hallucination—102
Handicaps to conscience—151-153
Handicaps to faith—166, 179-183
Hankering—132
Head—49-65, 216
Health—30, 39
Health in childhood—216-218
Health in youth—225-226
Heart—19-24, 34, 38, 40-48, 50, 64, 118, 119, 145, 148, 220, 229
Height in childhood—214, 215
Height in youth—215, 222-224
Heritage—194
History on faith—172
Holy Ghost—23, 116, 137, 138, 163, 164, 170, 181, 185, 186-187, 188, 189, 191
Human soul—15-16
Hunger for food—33, 34
Hunger for knowledge—227
Hunger for love—227, 228
Hunger for redemption—183
Hunger for religion—161-164, 232
Hunger for righteousness—144-156, 183
Hypnotism—77, 102, 119

I—235, 243
Idea—95, 98-99
Ideal—115, 174
Idealism—28-29, 227, 228
Identity of soul—244-245
Idiot—114, 205
Idolatry—166
Illiteracy—221
Illumination—188, 189
Illusion—102
Image—100
Image of God—see God's image
Imagination—92, 100-102, 149, 218, 226, 243
Imbeciles—203, 205
Imitation—135
Immortality of soul—16-17
Impressions—96
Inattention—74
Incarcerationism—29
Inclination—132, 133
Indexes—250-270
Individual differences—204, 222, 224, 246
Individuality—212, 245, 246
Induction—112, 113
Infancy—216
Infant Baptism—171, 174
Infant's faith—171
Infidelity—162, 194, 220, 221, 232, 242
Influence of body on soul—33-37

Influence of faith on conscience—173-174
Influence of faith on feeling—173
Influence of faith on knowing—172
Influence of faith on willing—173
Influence of feelings on digestion—38
Influence of soul on body—37-39
Inherited powers—194
Inherited types—212, 246
Innate ideas—165, 166, 198
Innocence—178
Insanity—51, 128, 205, 237
Instinct—135, 193-197
Intellect—81
Intellectual education—208
Intellectual emotions—127, 228
Intelligence—193-197
Intelligence tests—204-206
Intensity—96, 199
Intensity of consciousness—69
Intensity of feelings—121, 122
Interactionism—30
Interest—96, 200-202
Introspection—25, 68
Intuition—83, 84, 125, 148, 167, 195, 197, 198, 237, 238, 243
Involuntary attention—75
Irreligion—221

James-Lange Law—120
Jesus Christ—19, 23, 27, 39, 93, 109, 115, 116, 128, 131, 133, 137, 139, 140, 141, 149, 163, 164, 167, 168, 169, 170, 171, 172, 173, 174, 181, 182, 184, 185, 188, 189, 190, 191, 200, 229, 232, 241, 245, 248
Judging—110-112, 243
Judgments—110, 111, 149
Justification—188, 189

Kinaesthetic sensations—37
Kingdom of God—185-186
Knowing—43-44, 79-116, 118, 119, 120, 130, 131, 147, 148-150, 165-168, 172, 181, 191, 193-211, 218-219, 226, 227, 242, 243
Knowing aspect of conscience—148-150, 242, 243
Knowing aspect of faith—165-168, 242, 243

Ladder of knowing—105, 106
Language—105, 106, 107, 108, 109, 194, 226
Late childhood—206, 212, 215, 218, 223
Late maturity—212
Late old age—212
Late youth—206, 212, 215, 223, 228
Law of God—see Moral law
Laws of association—93
Laws of memory—96, 97, 98
Laws of learning—200-202
Learning—193-211
Learning by heart—94-100, 219
Learning of animals—194, 198, 199
Levels of consciousness—69, 70
Levels of reaction—47, 50, 59
Life—16, 17, 18, 19
Limitations of conscience—147, 148
Limitations of induction—114
Limitations of knowing—116
Limitations of learning—202
Limitations of natural faith—116, 137, 164, 186
Limitations of reason—114, 115, 186, 229
Limitations of psychology—240
Limitations of tests—205, 208
Limitations of will—137, 138, 182
Living faith—171
Locus of soul—34, 40-48
Logic—112
Logical memory—97, 99
Longing—132, 231
Longing for knowledge—227
Longing for love—227, 228
Longing for perfection—229
Longing for redemption—183
Longing for religion—232
Longing for righteousness—144-156, 183
Lord—see God
Lord's Supper—187, 188
Love—128, 168, 173, 195, 196, 227, 228
Lymphatic temperament—34

Major faculties—81, 82, 242
Male—215, 222, 223, 224, 225, 226, 228
Materialism—29, 67, 95, 238
Matter—14, 15, 242
Maturity—201, 212
Maze experiment—198
Means of Grace—19, 163, 168, 170, 171, 174, 175, 186, 187, 188, 191
Measurement of learning—202-209
Medulla oblongata—55, 58
Melancholic temperament—34
Memory—71, 92, 94-100, 109, 125, 149, 219, 221, 236, 238, 239, 243, 244
Mental set—see apperception
Mental test—204-206
Merit—149
Mesmerism—102
Methods of psychology—24, 25
Middle childhood—206, 212, 215, 218, 223
Middle maturity—212
Middle old age—212
Middle youth—206, 212, 215, 223
Mind—19-24, 240
Mnemonics—97
Modern psychology—28-33, 79-81, 238
Molboers—245
Monism—28-29
Monotheism—166
Moral education—154, 157, 222, 227, 231, 232

Moral emotions—127, 173, 228
Moral faculty—82, 143-159
Morality of soul—18
Moral instincts—196
Moral law—18, 84, 114, 144, 145, 148, 149, 150, 151, 152, 154, 157, 170, 172, 173, 174, 179, 180, 187, 229, 232
Moral standards—145-147, 151, 154, 157, 172, 174, 179, 228, 229
Moron—205
Mortality statistics—216, 217, 233
Motive—132, 133, 139
Motor nerves—50, 58, 92
Mouth—36
Muscles—32, 33, 37
Multiple consciousness — 77, 236, 237, 242
Mystic ecstasy—94
Mystical union—188

Nationality—204
Native ability—194, 212
Natural conscience—154, 156, 169, 170
Natural depravity—182
Natural faith—19, 82, 160, 161, 162, 165, 166, 167, 168, 169, 170, 183 189
Natural man—163, 179-183
Natural religion—19, 161-165
Natural states—178-182
Necessary ideas—198
Neglect of conscience—143-144
Neglect of faith—160
Neglect of will—130
Nerve cell—56, 65, 95
Nerve fibers—55, 60, 61
Nerves—49-65, 220
Nervous system—36, 38, 49-65, 194, 219, 239
Neural pathway—57, 59, 62, 95, 134, 238
Neurone—56, 61
New Adam—190, 236, 242
New birth—191
New Testament—26, 145, 187
Non-Christian faith—172
Normal curve—205
Norwegian Lutheran Church — 3, 31, 206, 207
Nose—36
Notions—104-109
Number of major faculties—79

Objective faith—171
Objective soul—78
Observation—25, 106, 198, 199
Occupation—229
Old Adam—179, 190, 219, 236, 242
Old age—212
Old Testament—26, 145, 184, 186
Order of salvation—19, 188-191
Organic sensations—37
Original sin—180, 182
Origin of feeling—125
Origin of idolatry—166
Origin of sin—179
Other terms for soul—19-24
Otis Scale—204
Outlining—94

Pain—36, 60
Parallelism—30
Pardon—181, 184, 189
Parental instincts—196
Parochial school—206, 230
Parts of body in childhood—214-216
Parts of body in youth—224-225
Parts of nervous system—49, 51, 59, 60
Passive attention—75
Peace—183
Pedagogical application as to conscience—156-157
Pedagogical application as to faith —174-175
Perfection—190, 229, 248
Percept—88, 98, 105, 109, 125
Perception—87-89, 149, 243
Periods of childhood—206, 212, 224, 225
Periods of life—212
Periods of youth—206, 212, 224, 225
Peripheral nervous system—37, 57, 59-62
Perseverance—134
Personality—237, 245, 246
Persons—250
Phantasy—101, 102
Philosophy—19, 133, 155, 172
Phlegmatic temperament—34
Physical aspect of conscience—153
Physical aspect of faith—170
Physical aspect of feelings—124-127
Physical basis of association—92, 93
Physical basis of feeling—118, 119
Physical basis of memory—95
Physical basis of sensation—84, 85
Physical basis of will—134, 136
Physical defects—216
Physical education—208, 218, 226
Physical exercise—226
Physical feelings—124-127, 219, 243
Physical foundations—40-66
Physical growth in childhood—214-218
Physical growth in youth—222-226
Physiology of association—92, 93
Physiology of feelings—118, 119
Physiology of knowing—218-219
Physiology of memory—95, 219
Physiology of nervous system—49, 54, 60, 61, 62-64
Physiology of peripheral nervous system—60-61
Physiology of sensation—84, 85
Physiology of sympathetic nervous system—62-64

Physiology of will—134, 136
Pineal gland—64, 65
Plants—15, 16, 17, 18
Plasticity of childhood—219, 230
Plasticity of youth—221, 222, 230
Plateaus of despond—203
Play—196, 200
Pleasantness-unpleasantness — 118, 126
Poetry on conscience—155
Poetry on faith—172
Polytheism—166, 167
Position—87
Powers—79-82, 240, 241, 242, 243
Practice—197-200
Prayer—151, 220
Preparation for redemption—184-186
Presentation—82-89, 218, 243
Preservation—188, 190, 191
Pressure—36, 60
Pricking the conscience—152
Primacy—96, 199
Processes of soul—80-81, 241
Process of learning—197-200
Products of soul—81, 241-242
Progress of growth in height—215
Progress of growth in weight—223
Proofs of existence of conscience —145-147
Proofs of existence of faith—161-164
Propositions—112, 113
Proverbs on conscience—154
Proverbs on faith—172
Proverbs on will—138
Psychical feelings—124-127, 243
Psychical foundations—67-78
Psychological methods—24-25
Psychology and conscience—143-148
Psychology and faith—160-165
Psychology of nerves—50, 57, 58, 59, 62, 64, 67, 84, 85, 92, 93, 95, 118, 119, 218, 219
Psycho-therapy—170
Puberty—215, 224
Pubescence—215, 223
Punishment for sin—181
Purpose—133-134, 44, 169, 229, 243

Quality of consciousness—69-70
Quality of faith—17, 171
Quality of feelings—120-121

Race—204
Rate of learning—202
Rate of physical growth—214-218, 222-226
Rate of psychical growth—219-221, 226-232
Rationality of soul—17-18
Reality of soul—14, 241
Reasoning—112-116, 150, 243
Recalling—97-98
Recency—96, 199
Recognizing—98
Recollecting—70, 72, 73, 97, 98
Recording—96, 97
Redemption—163, 164, 172, 183, 184-191
Reflex action—50, 59, 62, 134, 136
Reformers—228
Regeneration—100, 163, 191
Religion universal—162
Religious education — 174-175, 208, 221, 222, 227, 231, 232
Religious emotions—127, 228
Religious faculty—82, 161-164
Religious faith—161-164
Religious instincts—196
Religious nature of soul—18-19, 160-164, 183
Religious standard—see Word of God, Bible
Renewed state—183-192
Renovation—183
Repetition—96, 97, 98, 199
Representation—82, 91-103, 219, 243
Reputation—248
Resolution—134
Respiratory system—36, 38
Rest—33, 96
Restlessness-quiescence—129
Retaining—97
Retina—62, 65
Revealed religion—182, 183
Revery—94, 101
Rote memory—99

Sacraments—108, 170, 186, 187, 188
Salvation—19, 174, 183, 191
Sanctification—100, 189-190
Sanguine temperament—34
Santa Claus—221
Satan—118, 163, 173, 174, 176, 179, 180, 185, 190
Science—13, 26, 164, 166, 240, 241
Science and faith—164
Scientific faith—164
Scientific religion—166
School attendance—213, 221
School years—214
Scope of attention—76
Scope of consciousness—73
Scope of faith—171
Scripture passages—259-261
Scripture—see Bible and Word of God
Seasons of life—212
Seat of soul—34, 40-48, 65, 95, 239
Secondary passive attention—75
Secular education—221, 230, 231
Self—30, 141, 235-249
Self-activity—132
Self-consciousness—67-69
Self-interest—200, 219
Self-preservation instincts — 124, 196
Self-progressive instincts—196
Seminary—206, 230

Senescence—232
Sensations—36, 37, 73, 84-87, 98, 125, 218, 237, 238, 241, 243
Sensibility—82
Sensory feelings—126, 243
Sensory nerves—50, 58, 92
Sex—204, 206, 220, 224, 226, 227, 228
Similarity—93, 97
Sin—179-183
Sin against the Holy Ghost—181
Sinful nature—183
Skill—193
Skin—36, 60
Sleep—33, 50, 70, 72, 73, 93, 96, 218, 226, 235, 244
Smell—36, 86
Smell Gate—86
Social emotions—227, 228
Social instincts—196
Social order—173
Soldiers—228
Somnambulism—77, 102, 235
Sonship—24, 181
Soul—14-24, 40-48, 242
Soul care—39
Source of faith—116, 137, 164, 170, 186
Sources of consciousness—238
Sources of memory—95
Sources of psychology—13, 24, 25
Special senses—25, 36-40
Speed of consciousness—69, 70
Spinal cord—51, 52, 56, 58
Spinal nerves—35, 57, 60
Spirit—19-23, 242
Spirituality of the soul—15, 28-33
Spontaneous action—134
State of corruption—163
State of grace—163, 183
State of innocence—178
States of soul—80-81
Steps in knowing—83, 91, 104, 105, 106, 239, 243
Steps in willing—136
Storm and stress period—229
Strain—37
Stream of consciousness—73, 238, 244
Strength in childhood—216-218
Strength in youth—225-226
Strong faith—171
Strong will—135, 136, 140
Studying—193-211, 226
Subconsciousness—69, 70, 71, 72, 73, 93, 95, 102, 237-240
Subjective faith—171
Subjective soul—78
Subnormal—203, 205
Suggestion—102
Sunday School—135, 206, 207, 230
Superconsciousness—77-78
Supernatural conscience—154, 169, 170
Supernatural faith—82, 160-164, 167, 168, 169, 170, 183, 189, 191, 221, 226, 241
Syllogism—112
Sympathetic nervous system—49, 50, 62-64, 134
Synapse—61
Synthesis—93, 94

Tabula rasa—197, 198
Tartarus—146
Taste—36, 86
Taste Gate—86
Teacher—211
Telepathy—77
Temperaments—84, 126, 204
Temporal death—17
Temptation—180
Ten Commandments — see Moral Law
Tension—relaxation—129
Tests—202-209
Thalamus—55, 58
Theology on conscience—155-156
Theology on faith—172
Theology on psychology—24
Thinking—83, 98, 104-116, 226, 240, 243
Three dimensional feelings—129
Touch—60
Touch Gate—86
Threshold of consciousness—70, 72
Training of the will—139
Transmission of sin—182
Trial and error—198, 199
Trinity—45, 163, 167
Two dimensional feelings—129
Trichotomy—19-24, 78
Twiceborn—184
Type—212, 245, 247

Unbelief—19, 151, 160, 182, 220, 232
Unconsciousness—69, 70, 136, 239, 240
Understanding—81
Unity of soul—79-82, 105, 130, 131, 148, 242-243
Unpardonable sin—181

Vacation schools—207
Value of apperception—87, 201, 202
Value of association—93-94
Value of character—247, 248
Value of conception—108-109
Value of conscience—144-145, 154-157
Value of deduction—113, 114
Value of education—221, 222
Value of faith—160-161, 172-175
Value of feeling—127-128
Value of grading—207-209
Value of habit—199-200
Value of imagination—102
Value of induction—113, 114
Value of instinct—196-197
Value of intelligence—196-197
Value of interest—201-202

Value of intuitions—84, 197, 198
Value of judging—111-112
Value of measurements—207-209
Value of memory—99-100
Value of natural religious faith —163
Value of nervous system—50-51
Value of practice—199-200
Value of psychology—13-14, 248
Value of reasoning—114-116
Value of sensations—86
Value of soul—19
Value of supernatural religious faith—172, 175
Value of tests—207-209
Value of willing—138-141
Vegetative soul—15, 16, 17, 18
Veneer conscience—151, 152, 153, 154, 157
Vestigial organs—50, 51, 64, 65
Vital organs—32
Vocabulary—108, 109
Vocation—188-189
Vocations—228, 230, 242
Volition—82
Volitional actions—134, 135, 137
Voluntary attention—75
Voluntary feelings—124

Wages of sin—181
Wanderlust—231
Warmth—36, 60
Weak faith—171
Weak will—136
Weight in childhood—214
Weight in youth—222-224
Will—82, 130-142, 191, 247
Willing—44, 45, 82, 130-142, 147, 148, 165, 173, 179, 181, 193, 194, 219, 220, 228, 242, 243
Willing aspect of conscience—151-153, 242, 243
Willing aspect of faith—168-169, 242, 243
Wish—132
Word of God—14, 25, 82, 145, 149, 153, 154, 155, 157, 160, 167, 168, 169, 170, 171, 178, 179, 187, 220, 222, 246
Word of God—see also Bible
Work—33, 202, 226
Work of Christ—184-185
Worry—226

Youth—206, 212, 221-232

Zeal—200-202

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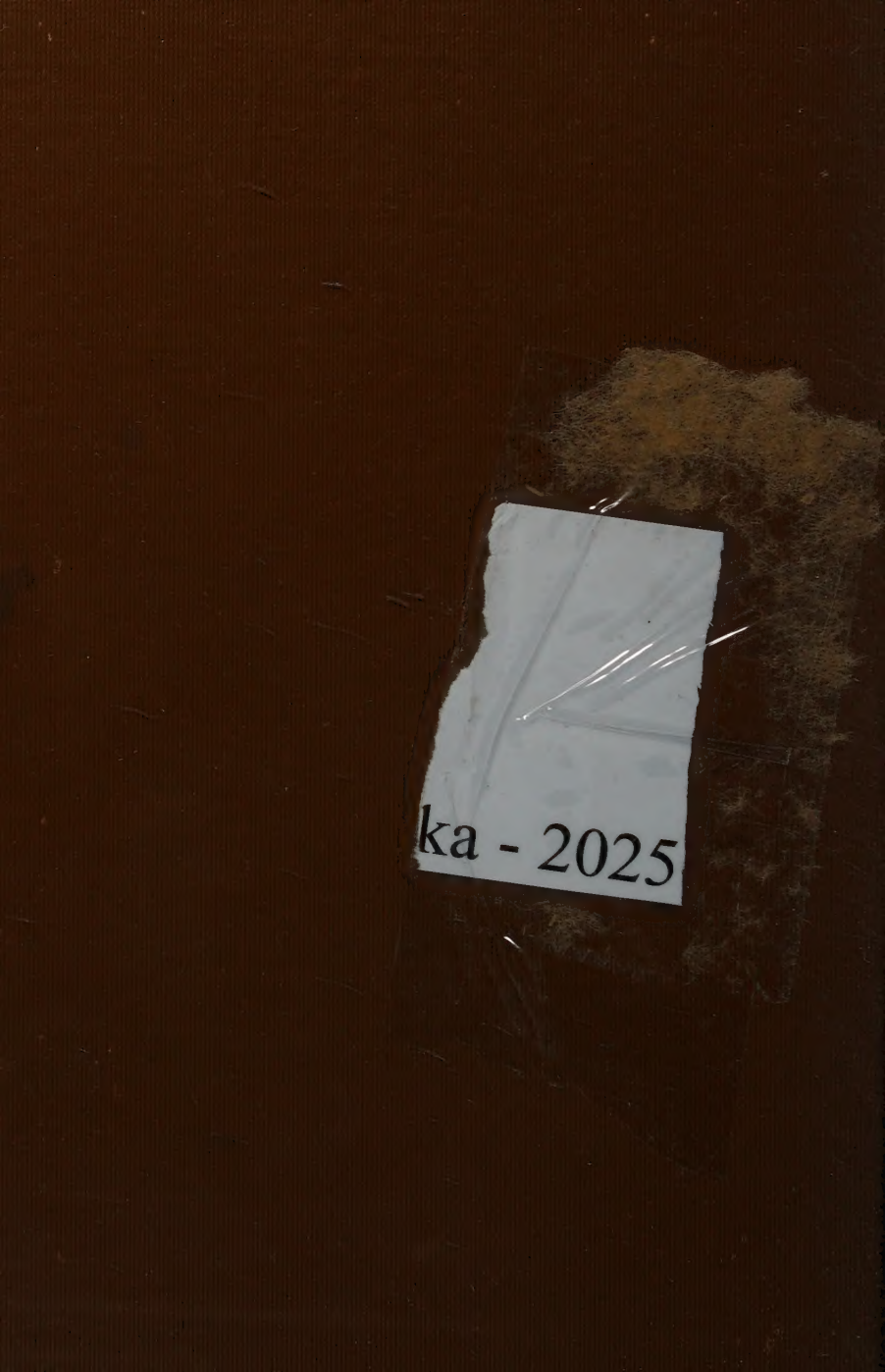
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